ORDER NO. BSD0103M618S

Service Manual

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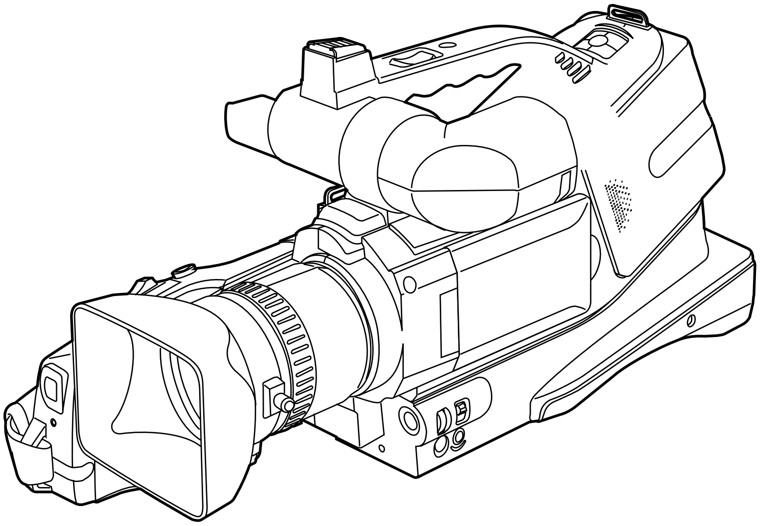
Mini DV

Digital Video Camera Recorder

AG-DVC15E



Panasonic®

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ENGLISH

Specifications

Digital Video Camera Information for your safety

Power Source:	DC 7.2/7.9 V
Power Consumption:	Recording 9.2 W (When using Finder) 10.8 W (When using LCD Monitor)

Recording format:	Digital video SD format
Tape format:	Mini-DV
Recording signals:	625i (PAL)
Recording audio signals:	16 bits, 48 kHz for 2 channels; 12 bits, 32 kHz for 4 channels
Recording tracks:	Helical tracks for digital video and audio: Helical track
Time code:	Helical track (sub-code area)
Tape speed:	18.831 mm/sec (SP mode), 12.568 mm/sec (LP mode)
Recording time:	60 minutes (in SP mode using AY-DVM60) 90 minutes (in LP mode using AY-DVM60)
Tape used:	6.35 mm wide ME tapes (Mini-DV cassette tapes)
FF/REW time:	Less than 80 sec. (using AY-DVM60)
Video (Analog composite OUT)	
Sampling frequency:	13.5 MHz for Y, 3.375 MHz for P_B/P_R
Quantizing:	8 bits
Video compression system:	DCT + variable-length code
Error correction:	Reed-Solomon product code
Audio (Digital audio)	
Sampling frequency:	48 kHz/32 kHz
Quantizing:	16 bits/12 bits
Video output signals	
Monitor output:	Phono × 1, 1.0 Vp-p, 75 ohms
S-VIDEO output:	S-VIDEO × 1, 75 ohms, Y: 1.0 Vp-p, C: 0.3 Vp-p
Audio input/output signals	
MIC input:	3.5 mm, stereo-mini jack (–70 dBv, high impedance)
XLR input (CH1/CH2):	High impedance, 0/–60 dBu (LINE/MIC selectable)
Built-in microphone:	Stereo
Audio output:	Phono × 2 (CH1/CH2), –10 dBv, low impedance
Headphone output:	3.5 mm, stereo-mini jack
Other input/output signals	
Digital interface:	4 pins (DV I/O connector, compliant with IEEE 1394, 4P)
Camera unit	
Pickup device:	1/4-inch, 510H × 3 CCD (pixel offset system)
Number of pixels:	320,000
Sensitivity:	1,400 lux
Minimum brightness:	5 lux (in digital increased gain mode)
Signal-to-noise ratio:	46 dB
Horizontal resolution:	460 lines
Sampling frequency:	13.5 MHz/27 MHz
Shutter speed:	1/50 to 1/8000 (14 steps)
Gain switching:	0, 3, 6, 9, 12, 18 dB
Color separation optical system:	Prism system
Lens:	Automatic iris, 12X motorized zoom lens, F1.6, f=4.16 to 47.66 mm
Dimennsions:	211 (W) × 224 (H) × 431 (T) mm
Weight:	2.3 kg (without battery) 2.5 kg (with battery, shoulder strap and cassette)
Operating Temperature:	0°C–40°C
Operating Humidity:	10%–80% (no condensation)

SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohm meter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. The resistance value must be more than 5MΩ.

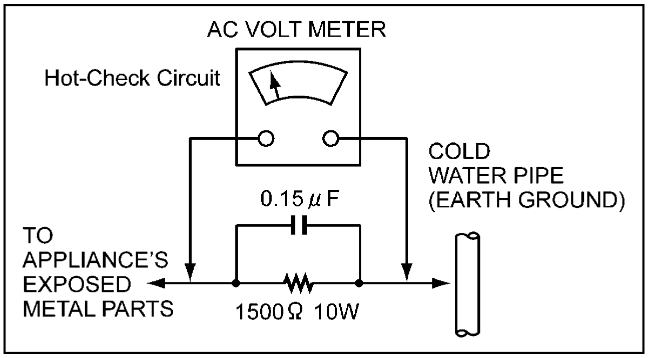


Figure1

LEAKAGE CURRENT HOT CHECK (See Figure 1)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10W resistor, in parallel with a 0.15µF capacitor, between each exposed metallic part on the set an a good earth ground such as a water pipe, as shown in Figure1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet repeat each of the above measurements.
6. The potential at any point should not exceed 0.15 volts RMS. A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks, leakage current must not exceed 0.1 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically sensitive (ED) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground.
   Alternatively, obtain and wear a commercially available discharging wrist trap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as alminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it.
   (most replacement ES devices are package with leads electrically shorted together by conductive foam, alminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

X-RADIATION

WARNING

1. The potential source of X-radiation in EVF sets is the High Voltage section and the picture tube.
2. When using a picture tube test jig for service, ensure that jig is capable of handling 10kV without causing X-Radiation.

Note : It is important to use an accurate periodically calibrated high voltage meter.

3. Measure the High Voltage. The meter (electric type) reading should indicate 2.5kV, ±0.15kV. If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure. To prevent an X-Radiation possibility, it is essential to use the specified picture tube.

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER TO SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (service) instructions in the literature accompanying the appliance.

CAUTION:

Do not install or place this unit in a bookcase, built-in cabinet or in another confined space in order to keep well ventilated condition. Ensure that curtains and any other materials do not obstruct the ventilation condition to prevent risk of electric shock or fire hazard due to overheating.

WARNING:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

FCC Note:
This device complies with Part 15 of the FCC Rules. To assure continued compliance follow the attached installation instructions and do not make any unauthorized modifications.

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Replace battery with part No. CR2025/1B only.
Use of another battery may present a risk of fire or explosion.
Caution—Battery may explode if mistreated.
Do not recharge, disassemble or dispose of in fire.

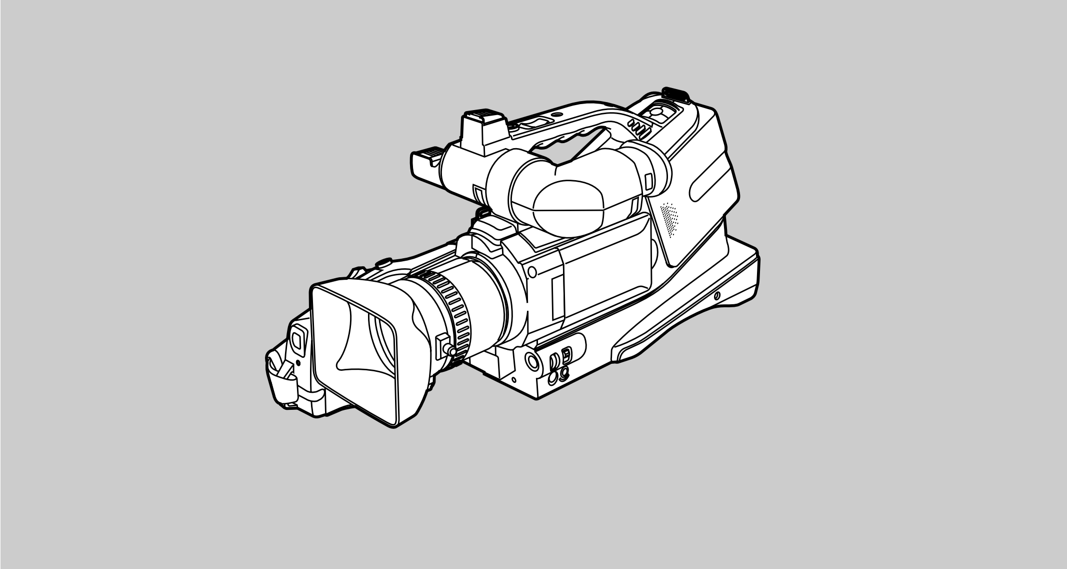
ENGLISH
DEUTSCH
FRANÇAIS
ESPAÑOL

Operating Instructions

Mini DV PAL

Digital Video Camera Recorder

AG-DVC15E



Panasonic

Before attempting to connect, operate or adjust this product, please read these instructions completely.

DEUTSCH

Informationen für Ihre Sicherheit

WICHTIGER HINWEIS
Um die Gefahr eines elektrischen Schlages oder Störungen zu vermeiden, nur das empfohlene Zubehör verwenden und dieses Gerät weder Regen noch Feuchtigkeit aussetzen. Das Gehäuse nie öffnen; im Geräteinneren gibt es keine Teile, die von Laien gewartet werden können. Wenden Sie sich für Reparaturarbeiten bitte an das Fachpersonal.

Digital-Camerarecorder
- **Das Typenschild befindet sich an der Unterseite des Camerarecorders.**

Netzadapter
- **Das Typenschild befindet sich an der Unterseite des Netzadapters.**
- **Dieses Gerät an einem gut belüfteten Ort betreiben, da es sich beim Betrieb erwärmt. Es darf nicht an einem Ort aufgestellt werden, an dem keine ausreichende Luftzirkulation gewährleistet ist, z. B. in einem Bücherregal o. ä.**

■ Die Bedienungsanleitung sorgfältig durchlesen und den Camerarecorder korrekt benutzen.

- **Für Verletzungen oder Sachschäden, die durch unsachgemäße Benutzung entstehen, welche nicht den Anweisungen in der Bedienungsanleitung entspricht, ist der Benutzer allein verantwortlich.**

Den Camerarecorder ausprobieren.
Bevor Sie Ihr erstes wichtiges Ereignis aufnehmen möchten, den Camerarecorder ausprobieren und sich vergewissern, daß er problemlos aufnimmt und korrekt funktioniert.

Der Hersteller übernimmt keine Haftung für den Verlust von aufgezeichnetem Inhalt.
Unter keinen Umständen trägt der Hersteller irgendwelche Haftung für den Verlust von Aufzeichnungen aufgrund von Betriebsstörungen oder Defekten dieses Camerarecorders, seines Zubehörs oder von Cassetten.

Urheberrechte sorgfältig beachten.
Das Aufnehmen von kommerziell vorbespielten Bändern oder Platten bzw. von anderem veröffentlichten oder gesendeten Material, außer für den privaten Gebrauch, kann Urheberrechte verletzen. Selbst für den privaten Gebrauch ist jedoch das Aufnehmen von gewissem Material nicht gestattet.

Seiten mit zusätzlicher Information
Seiten mit zusätzlicher Information sind mit einem Pfeil vor der Seitennummer gekennzeichnet, z. B. (➜ 00).

Besondere Symbole im Text
♦ Anmerkungen und Vorsichtshinweise
- Resultat des vorhergehenden Bedienungsschrittes und zusätzliche Erklärungen.

ENGLISH

Information for Your Safety

WARNING
To reduce the risk of fire or shock hazard and annoying interference, use only the recommended accessories and do not expose this equipment to rain or moisture. Do not remove the cover (or back); there are no user serviceable parts inside. Refer servicing to qualified service personnel.

Camera Recorder
- **The rating plate is on the underside of the Camera Recorder**

AC Adapter
- **The rating plate is on the underside of the AC Adapter.**
- **As this equipment gets hot during use, operate it in a well-ventilated place; do not install this equipment in a confined space such as a bookcase or similar unit.**

■ Carefully read the Operating Instructions and use the Camera Recorder correctly.

- **Injury or material damage resulting from any kind of use that is not in accordance with the operating procedures explained in these Operating Instructions are the sole responsibility of the user.**

Try out the Camera Recorder.
Be sure to try out the Camera Recorder before recording your first important event and check that it records properly and functions correctly.

The manufacturer is not liable for loss of recorded contents.
The manufacturer shall in no event be liable for the loss of recordings due to malfunction or defect of this Camera Recorder, its accessories or cassettes.

Carefully observe copyright laws.
Recording of pre-recorded tapes or discs or other published or broadcast material for purposes other than your own private use may infringe copyright laws. Even for the purpose of private use, recording of certain material may be restricted.

Pages for reference
Pages for reference are indicated with an arrow, for example: (➜ 00)

Special symbols in the text
♦ Notes and cautions
- Result of preceding operation step and additional comments.

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Dear Customer,

We would like to take this opportunity to thank you for purchasing this Panasonic Camera Recorder.
Please read these Operating Instructions carefully and keep them handy for future reference.

Information for Your Safety

WARNING

To reduce the risk of fire or shock hazard and annoying interference, use only the recommended accessories and do not expose this equipment to rain or moisture.
Do not remove the cover (or back); there are no user serviceable parts inside. Refer servicing to qualified service personnel.

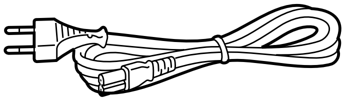
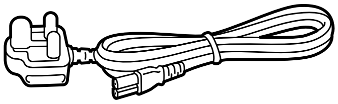
Camera Recorder
- The rating plate is on the bottom side of the Camera Recorder.

AC Adapter
- The rating plate is on the bottom side of the AC Adapter.
- As this equipment gets hot during use, operate it in a well ventilated place; do not install this equipment in a confined space such as a book case or similar unit.

Caution for AC mains lead

For your safety, please read the following text carefully.

This product is equipped with 2 types of AC mains cable. One is for continental Europe, etc. and the other one is only for U.K.
Appropriate mains cable must be used in each local area, since the other type of mains cable is not suitable.

FOR CONTINENTAL EUROPE, ETC.	**FOR U.K. ONLY**
Not to be used in the U.K. 	If the plug supplied is not suitable for your socket outlet, it should be cut off and appropriate one fitted. 

FOR U.K. ONLY

This appliance is supplied with a moulded three-pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5 amperes and it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark or the BSI mark on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover, the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local Panasonic Dealer.

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt, please consult a qualified electrician.

■ IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

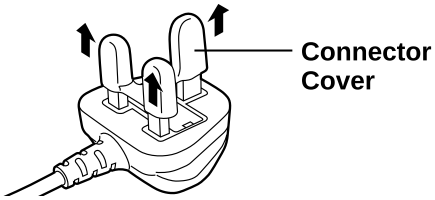
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol ⏚.

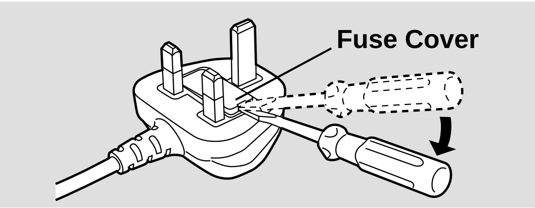
■ Before use

Remove the Connector Cover as follows.

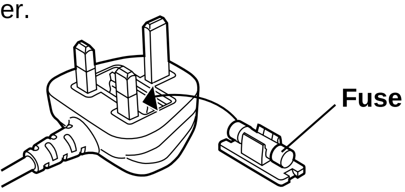


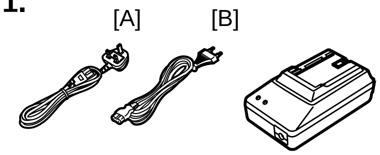
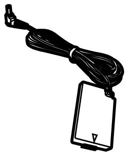
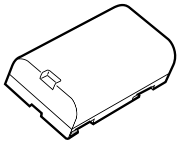
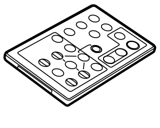
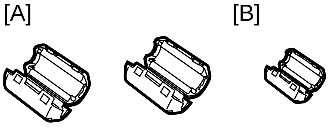
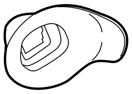
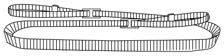
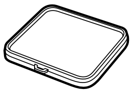
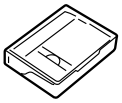
■ How to replace the Fuse

1. Remove the Fuse Cover with a screwdriver.



2. Replace the fuse and attach the Fuse Cover.

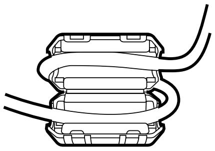


1. 	**2.** 	**3.** 
4. 	**5.** 	**6.** 
7. 	**8.** 	**9.** 

DEUTSCH

Mitgeliefertes Zubehör

1. **Netzgerät und Netzkabel (➜ 20, 22)**
   [A] Nur Großbritannien
   [B] Alle Gebiete außer Großbritannien
2. **Gleichstromkabel (➜ 20)**
3. **Akku (➜ 22)**
4. **Fernbedienung und Knopfzelle (➜ 106, 112)**
5. **Ferritkerne für DV-Verbindungskabel (➜ 118)**
   [A] Anbringen der Ferritkerne
   Wenn das DV-Verbindungskabel angeschlossen werden soll, ist je ein Ferritkern an beiden Enden des Kabels anzubringen.

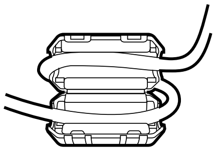
   

   [B] Ferritkern für Mikrophon auf Wunsch
6. **Augenmuschel (➜ 146)**
7. **Tragriemen (➜ 32)**
8. **Objektivdeckel (➜ 60)**
9. **Reinigungscassette**

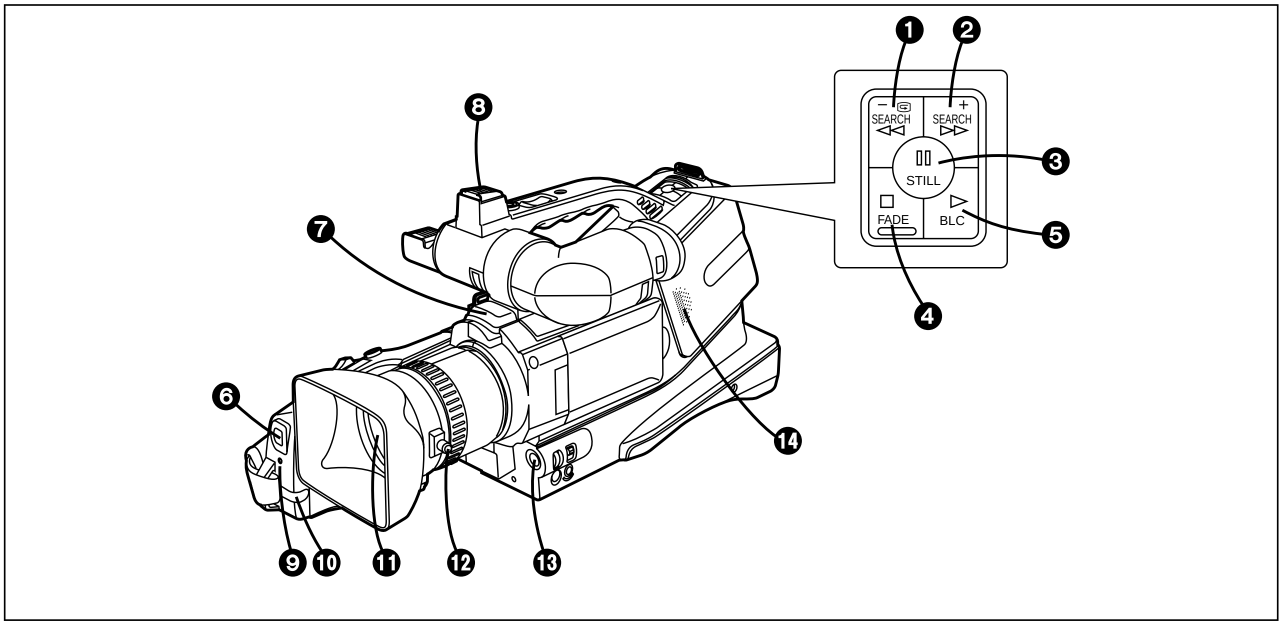
ENGLISH

Standard Accessories

1. **AC Adapter and AC Mains Cable (➜ 20, 22)**
   [A] U.K. only
   [B] All areas except U.K.
2. **DC Input Cable (➜ 20)**
3. **Battery Pack (➜ 22)**
4. **Remote Controller and Button-Type Battery (➜ 106, 112)**
5. **Ferrite Cores for DV Interface Cable (➜ 118)**
   [A] Attaching the Ferrite Cores
   When the DV Interface cable is to be connected, attach one Ferrite Core to one end of the cable and the other one to the other end.

   [B] Ferrite Core for Optional Microphone
6. **Eyepiece (➜ 146)**
7. **Shoulder Strap (➜ 32)**
8. **Lens Cap (➜ 60)**
9. **Cleaning Cassette**



DEUTSCH

Bedienungselemente und Bauteile

❶ **Rückwärts-Suchlauf-Taste/Rückspul-/Rückwärts-Bildsuchlauf-Taste/Aufnahmeprüf-Taste [◀◀] (➜ 36, 50, 52, 62)**

❷ **Vorwärts-Suchlauf-Taste/Vorspul-/Vorwärts-Bildsuchlauf-Taste [▶▶] (➜ 52, 62)**

❸ **Standbild-/Pausentaste [❚❚] (➜ 48, 56)**

❹ **Ein-/Ausblend-Taste/Stopp-Taste [■] (➜ 50, 72)**

❺ **Gegenlicht-Taste/Wiedergabe-Taste [▶] (➜ 36, 50)**

❻ **Weißabgleich-Sensor (➜ 154)**

❼ **Mikrofon (eingebaut, Stereo)**

❽ **Videoleuchtenschuh/Schuhabdeckung**
Dient zur Anbringung der Videoleuchte (Sonderzubehör).
- Um den Schuh zu benutzen, muß die Schuhabdeckung durch Verschieben in Pfeilrichtung entfernt werden.

❾ **Aufnahme-Anzeigelampe (➜ 34)**

❿ **Fernbedienungs-Sensor (➜ 114)**

⓫ **Objektiv**

⓬ **Scharfeinstellring (➜ 40)**

⓭ **Scharfeinstelltaste [FOCUS] (➜ 40)**

⓮ **Lautsprecher (➜ 50)**

ENGLISH

Controls and Components

❶ **Reverse Search Button / Rewind/Review Button / Recording Check Button [◀◀] (➜ 36, 50, 52, 62)**

❷ **Forward Search Button / Fast Forward/Cue Button [▶▶] (➜ 52, 62)**

❸ **Still Button / Pause Button [❚❚] (➜ 48, 56)**

❹ **Fade Button / Stop Button [■] (➜ 50, 72)**

❺ **Backlight Button / Play Button [▶] (➜ 36, 50)**

❻ **White Balance Sensor (➜ 154)**

❼ **Microphone (built-in, stereo)**

❽ **Video Light Shoe/Shoe Cover**
To Attach the Video Light (optional).
- When using the Shoe, remove the Shoe Cover by sliding it in the direction of the arrow.

❾ **Recording Lamp (➜ 34)**

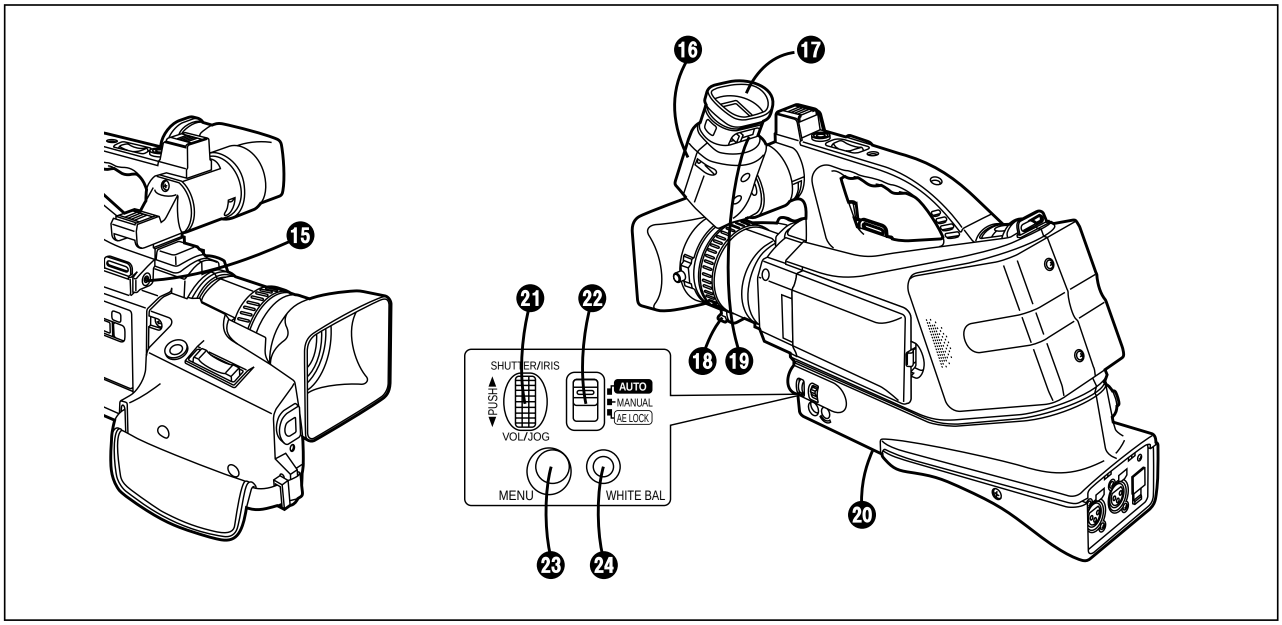
❿ **Remote Control Sensor (➜ 114)**

⓫ **Lens**

⓬ **Focus Ring (➜ 40)**

⓭ **Focus Button [FOCUS] (➜ 40)**

⓮ **Speaker (➜ 50)**



DEUTSCH

⑮ Mikrofonbuchse [MIC]

Zum Anschließen eines externen Mikrofons oder einer Stereoanlage. (Durch Anschluß an diese Buchse wird das eingebaute Mikrofon ausgeschaltet.)

Buchse: Mini-Klinke (M3)
Impedanz: Weniger als 4,7 kOhm
Typ: Stereo

(Beim Anschluß eines Mono-Mikrofons wird auf dem rechten Tonkanal kein Ton aufgezeichnet.)

Empfindlichkeit: Ca. −70 dB
Stromversorgung
für das Mikrofon: Nicht vorhanden

⑯ Sucher (➜ 30)

> Aufgrund von technologisch bedingten Beschränkungen in der LCD-Produktion können auf dem Sucherbildschirm u. U. einige winzige helle oder dunkle Punkte sichtbar sein. Dies ist jedoch keine Funktionsstörung, und diese Punkte werden nicht mit aufgezeichnet.

⑰ Okular

⑱ ND-Filter [ND FILTER] (➜ 120)

Dient zur Anpassung an die Lichtquelle, die das Motiv beleuchtet.

⑲ Okularkorrektur-Regler (➜ 30)

⑳ Stativanschluß

Zum Befestigen des Camerarecorders auf einem Stativ (nicht im Lieferumfang).

㉑ Multifunktions-Regler / Taste [PUSH] (➜ 46, 48, 50, 56, 64, 74, 80, 90, 92, 122, 130, 134)

㉒ Modus-Wahlschalter [AUTO / MANUAL / AE LOCK] (➜ 34, 40, 74, 86, 88, 90, 92, 94)

㉓ Menü-Taste [MENU] (➜ 46, 48, 64, 74, 80, 82, 84, 122, 130)

㉔ Weißabgleichtaste [WHITE BAL] (➜ 86, 88)

ENGLISH

⑮ Microphone Socket [MIC]

To connect an external microphone or audio equipment. (Connecting to this socket deactivates the built-in microphone.)

Socket: M3-type
Impedance: Less than 4.7 kohm
Type: Stereo

(When connecting a mono microphone, no sound is recorded on the right channel.)

Sensitivity: Approx. –70 dB
Power Source
for Microphone: Not available

⑯ Finder (➜ 30)

> Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the Finder screen. However, this is not a malfunction and does not affect the recorded picture.

⑰ Eyepiece

⑱ ND Filter [ND FILTER] (➜ 120)

To match the light source which is illuminating the subject.

⑲ Eyepiece Corrector Knob (➜ 30)

⑳ Tripod Receptacle

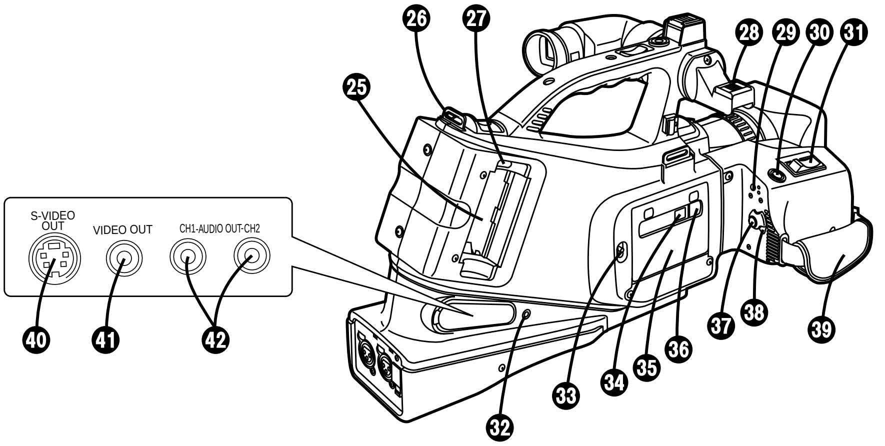
To mount the Camera Recorder on an optional tripod.

㉑ Multi-Function [PUSH] Dial (➜ 46, 48, 50, 56, 64, 74, 80, 90, 92, 122, 130, 134)

㉒ Mode Selector [AUTO / MANUAL / AE LOCK] (➜ 34, 40, 74, 86, 88, 90, 92, 94)

㉓ Menu Button [MENU] (➜ 46, 48, 64, 74, 80, 82, 84, 122, 130)

㉔ White Balance Button [WHITE BAL] (➜ 86, 88)



DEUTSCH

㉕ **Akkufach (➜ 22)**

㉖ **Halterungen für den Schultertrageriemen (➜ 32)**

㉗ **Akku-Auswurfhebel (➜ 22)**

㉘ **Mikrofonschuh/Schuhabdeckung**
Dient zur Anbringung des Stereo-Zoommikrofons (Sonderzubehör).
- ●Um den Schuh zu benutzen, muß die Schuhabdeckung durch Verschieben in Pfeilrichtung entfernt werden.

㉙ **Umschalttaste für den Wiedergabe-Modus/ Aufnahme-Modus und Lampen [VCR] und [CAMERA] (➜ 34, 50)**

㉚ **Standbild-Aufnahmetaste [PHOTO SHOT] (➜ 44)**

㉛ **Zoomhebel [W/T] (➜ 42)**

㉜ **Kopfhörerbuchse [PHONES]**
An Kopfhörer.

㉝ **Cassettenauswurfhebel [⏏ EJECT] (➜ 26)**

㉞ **Cassettenfach-Fenster (➜ 26)**

㉟ **Cassettenfach (➜ 26)**

㊱ **Cassettenfach-Schließknopf [PUSH TO CLOSE] (➜ 26)**

㊲ **Aufnahme-Start-/Stopp-Taste (➜ 34)**

㊳ **Ein-/Aus-Schalter [POWER] (➜ 30, 34)**

㊴ **Handgriff-Riemen (➜ 32)**

㊵ **S-Video-Ausgangsbuchse [S-VIDEO OUT] (➜ 58, 116)**
An Monitor mit S-Video-Eingang.

㊶ **Video-Ausgangsbuchse [VIDEO OUT] (➜ 58, 116)**
An Monitor.

㊷ **Audio-Ausgangsbuchse CH1/CH2 [AUDIO OUT CH1/CH2] (➜ 58, 116)**
An Audiogerät.

ENGLISH

㉕ **Battery Compartment (➜ 22)**

㉖ **Shoulder Strap Holders (➜ 32)**

㉗ **Battery Eject Lever (➜ 22)**

㉘ **Microphone shoe/shoe cover**
To Attach the Stereo Zoom Microphone (optional).
- ●When using the Shoe, remove the Shoe Cover by sliding it in the direction of the arrow.

㉙ **VCR (Playback) Mode / Camera (Recording) Mode Button (and Lamps) (➜ 34, 50)**

㉚ **Photoshot Button [PHOTO SHOT] (➜ 44)**

㉛ **Zoom Lever [W/T] (➜ 42)**

㉜ **Headphone Jack [PHONES]**
To Headphone.

㉝ **Cassette Eject Lever [⏏ EJECT] (➜ 26)**

㉞ **Cassette Compartment Window (➜ 26)**

㉟ **Cassette Compartment (➜ 26)**

㊱ **Cassette Compartment Close Button [PUSH TO CLOSE] (➜ 26)**

㊲ **Recording Start/Stop Button (➜ 34)**

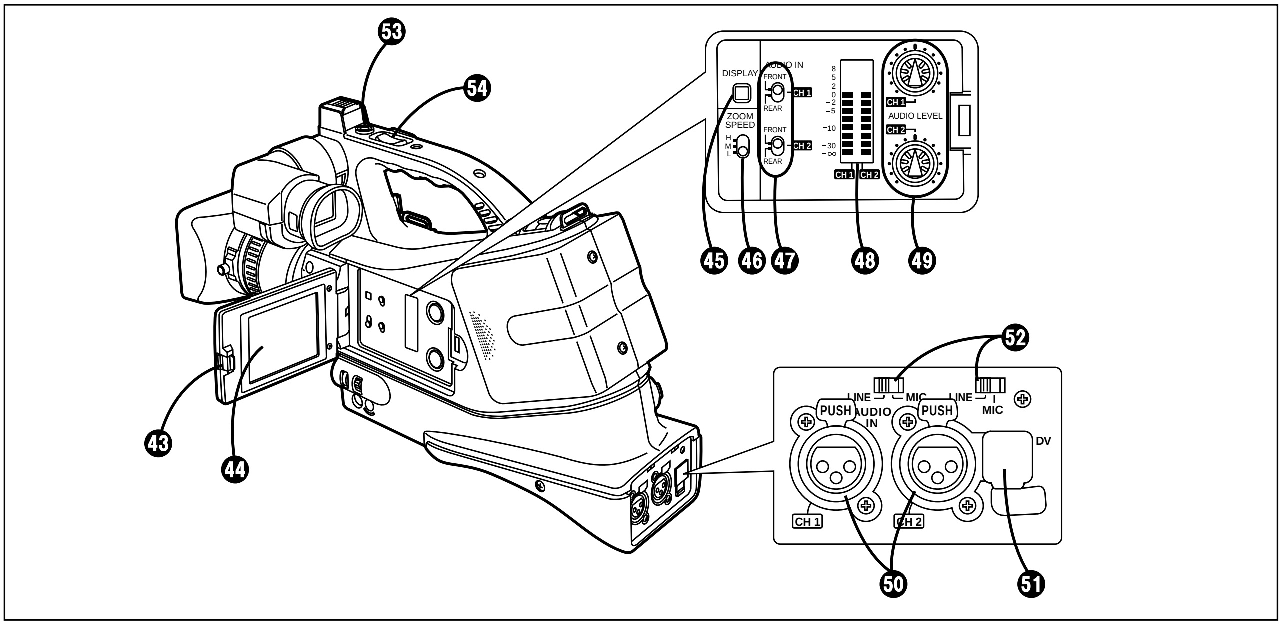
㊳ **Power Switch [POWER] (➜ 30, 34)**

㊴ **Grip Belt (➜ 32)**

㊵ **S-Video Output Connector [S-VIDEO OUT] (➜ 58, 116)**
To monitor TV with S-Video.

㊶ **Video Output Connector [VIDEO OUT] (➜ 58, 116)**
To monitor TV.

㊷ **Audio Output CH1/CH2 Jack [AUDIO OUT CH1/CH2] (➜ 58, 116)**
To audio equipment.



DEUTSCH

㊸ Öffnungshebel für den LCD-Monitor (➜ 30)

㊹ LCD-Monitor (➜ 30)

> Aufgrund von technologisch bedingten Beschränkungen in der LCD-Produktion können auf dem LCD-Monitor-Bildschirm u. U. einige winzige helle oder dunkle Punkte sichtbar sein. Dies ist jedoch keine Funktionsstörung, und diese Punkte werden nicht mit aufgezeichnet.

㊺ DISPLAY
Dient zur Ausgabe von Menüs, Funktionen und Operationen an LCD-Monitor, VIDEO OUT und S-VIDEO OUT.

㊻ ZOOM SPEED (➜ 42)
Dient zur Einstellung der Geschwindigkeit von HANDLE ZOOM auf drei Stufen.

㊼ AUDIO IN FRONT/REAR-Wahlschalter
FRONT: Auf der Vorderseite eingebautes Mikrofon wird als LINE-Eingang verwendet.
REAR: Audio-Line auf der Hinterseite wird als LINE-Eingang verwendet.

㊽ Pegelmesser AUDIO CH1/CH2
Zeigt den Audiopegel auf dem LCD an.

㊾ Aufnahmepegelregler AUDIO REC CH1/CH2

㊿ Audio-Eingangsbuchsen AUDIO IN CH1/CH2

(51) DV-Eingangs-/Ausgangsbuchse (➜ 118)
Für die Eingabe und Ausgabe von digitalen Video- und Audio-Signalen.

(52) Audio-Wahlschalter MIC/LINE
LINE: XLR-Eingang wird als LINE-Eingang verwendet.
MIC: XLR-Eingang wird als MIC-Eingang verwendet.

(53) Aufnahme-Start/Stopp-Taste REC START/STOP (➜ 34)

(54) Zoomtaste HANDLE ZOOM (➜ 42)
Dient zur Betätigung des Zooms, dessen Geschwindigkeit mit dem Schalter ZOOM SPEED im LCD-Monitor 3fach verstellt werden kann.

ENGLISH

㊸ LCD Monitor Open Lever (➜ 30)

㊹ LCD Monitor (➜ 30)

> Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the LCD Monitor screen. However, this is not a malfunction and does not affect the recorded picture.

㊺ DISPLAY
To display menus, functions ans operations on monitor LCD, VIDEO OUT and S-VIDEO OUT.

㊻ ZOOM SPEED (➜ 42)
To set the speed of HANDLE ZOOM in three levels.

㊼ AUDIO IN FRONT/REAR SELECTOR SWITCH
FRONT: Front built-in microphone is used as LINE Input.
REAR: Rear Audio Line is used as LINE Input.

㊽ AUDIO CH1/CH2 LEVEL METER
To show the Audio Level meter of LCD type.

㊾ AUDIO REC CH1/CH2 LEVEL VOLUME

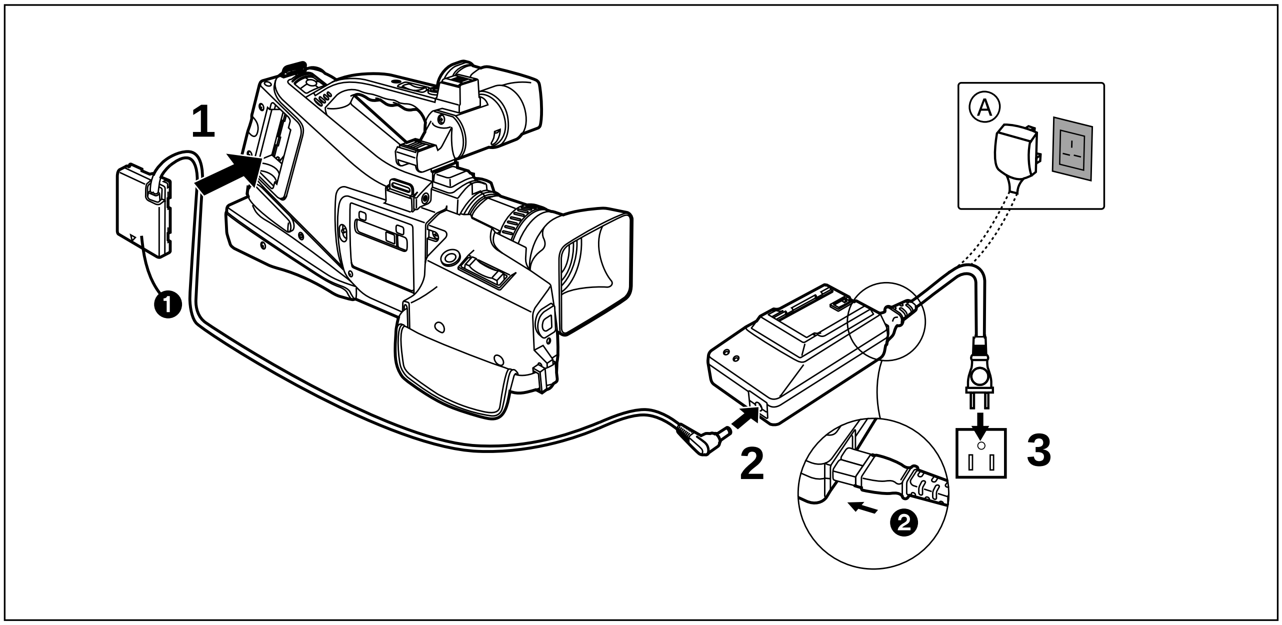
㊿ AUDIO IN CH1/CH2 CONNECTORS

(51) DV Input/Output Terminal (➜ 118)
To input and output digital video and audio signals.

(52) AUDIO MIC/LINE SELECTOR SWITCH
LINE: XLR Input is used as LINE lnput.
MIC: XLR Input is used as MIC lnput.

(53) REC START/STOP BUTTON (➜ 34)

(54) HANDLE ZOOM SWITCH (➜ 42)
To operate zooming that can be changed to 3 speed using the ZOOM SPEED SWITCH inside the LCD Monitor.



DEUTSCH

Die 2 Arten der Stromversorgung

1) Netzadapter (mitgeliefert) zur Stromversorgung von einer Netzsteckdose
2) Akku (mitgeliefert) (➜ 22)

■ Stromversorgung von einer Netzsteckdose

1 Die an die Akkuform angepasste Anschlussplatte des Gleichstromkabels ❶ in den Camerarecorder einführen.

2 Das andere Ende des Gleichstrom-Eingangskabels an den Netzadapter anschließen.

3 Das Netzkabel an eine Netzsteckdose anschließen.

Ⓐ Nur für Vereinigtes Königreich

- ●Der Stecker des Netzkabels kann nicht vollständig in die Buchse des Netzadapters eingeschoben werden. Der Abstand, um den der Stecker bei korrektem Anschluß aus der Buchse hervorsteht, ist aus der obigen Abbildung ❷ ersichtlich.
- ♦ Vor dem Herausziehen des Netzkabels den Ein-/Aus-Schalter am Camerarecorder unbedingt auf [OFF] stellen.
- ♦ **Bei längerem Einsatz des Camerarecorders erhitzt sich das Gerät; dies ist jedoch normal.**

Wenn das Gerät für längere Zeit nicht verwendet werden soll, es ausschalten und das Netzkabel aus der Netzsteckdose ziehen.

ENGLISH

The 2 Types of Power Supplies

1) AC Adapter (supplied) to supply power from an AC mains socket
2) Battery (supplied) (➜ 22)

■ Supplying Power from an AC Mains Socket

1 Insert the battery-shaped connector of the DC Input Cable ❶ into the Camera Recorder.

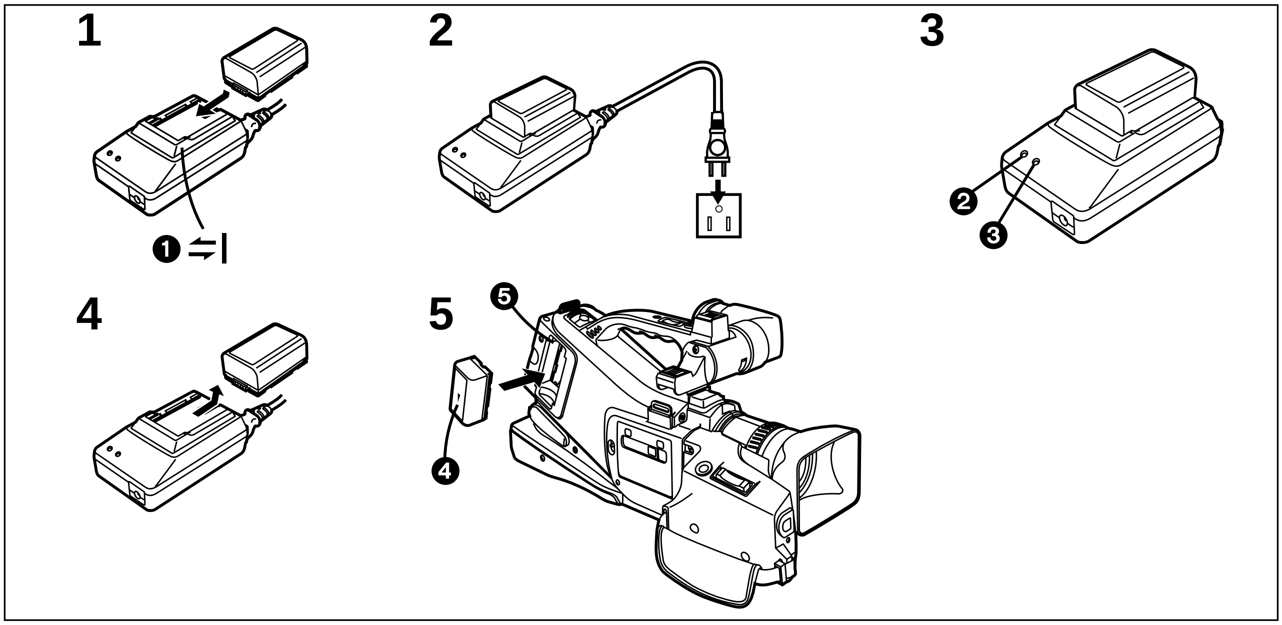
2 Connect the other end of the DC Input Cable to the AC Adapter.

3 Connect the AC Mains Cable to an AC mains socket.

Ⓐ U.K. only

- ●The AC Mains Lead’s outlet plug cannot be pushed fully into the AC Adapter socket. A gap will remain as shown ❷.
- ♦ Before disconnecting the AC Mains Cable, set the [POWER] Switch to [OFF].
- ♦ **If you use the Camera Recorder for a long time, it becomes warm. However, this is normal.**

If the unit is not going to be used for length of time, turn the power switch [OFF] and disconnect the AC Mains Cable from the AC mains socket.



DEUTSCH

■ Stromversorgung über Akku

Laden Sie den Akku vor Gebrauch voll auf.

1 Die Vorderkante des Akkus auf die Markierung ❶ an der Seite des Netzgerätes ausrichten, dann den Akku horizontal einschieben, bis er mit einem Klicken einrastet.

- ●Falls das Gleichstromkabel an das Netzgerät angeschlossen ist, muss es abgezogen werden, weil sonst Laden nicht möglich ist.

2 Das Netzkabel an eine Netzsteckdose anschließen.

- ●Die Lampen [POWER] ❷ und [CHARGE] ❸ leuchten auf, und der Ladevorgang beginnt.
- ●Falls die Lampe [CHARGE] nicht aufleuchtet, obwohl der Akku angebracht ist, den Akku abnehmen und erneut anbringen.

3 Wenn die Lampe [CHARGE] am Netzgerät erlischt, ist der Ladevorgang beendet.

4 Den Akku abnehmen, indem er in die entgegengesetzte Richtung des obigen Schritts 1 geschoben wird.

- ●Das Netzkabel ist ebenfalls abzuziehen.

5 Den Akku so einführen, dass ❹ nach unten zeigt.

Abnehmen des Akkus

Den Akkuauswerfknopf ❺ drücken.

- ♦ Halten Sie Ihre Hand vor das Akkufach, um Herunterfallen des Akkus zu verhüten.
- ♦ Stellen Sie den Schalter [POWER ON/OFF] vor dem Abnehmen des Akkus auf [OFF].

ENGLISH

■ Supplying Power with the Battery

Before use, fully charge the Battery.

1 Have the front edge of the battery lined up with the ❶ mark on the side of the AC Adapter, and then slide it horizontally until it locks with a click.

- ●If the DC Input Cable is connected to the AC Adapter, disconnect it as charging is not possible otherwise.

2 Connect the AC Mains Cable to an AC mains socket.

- ●The [POWER] Lamp ❷ and the [CHARGE] Lamp ❸ light and charging starts.
- ●If the [CHARGE] Lamp does not light even though the Battery is attached, remove the Battery and then reattach it.

3 When the [CHARGE] Lamp on the AC Adapter goes out, charging is finished.

4 Remove the Battery by sliding it in the opposite direction of Step 1 above.

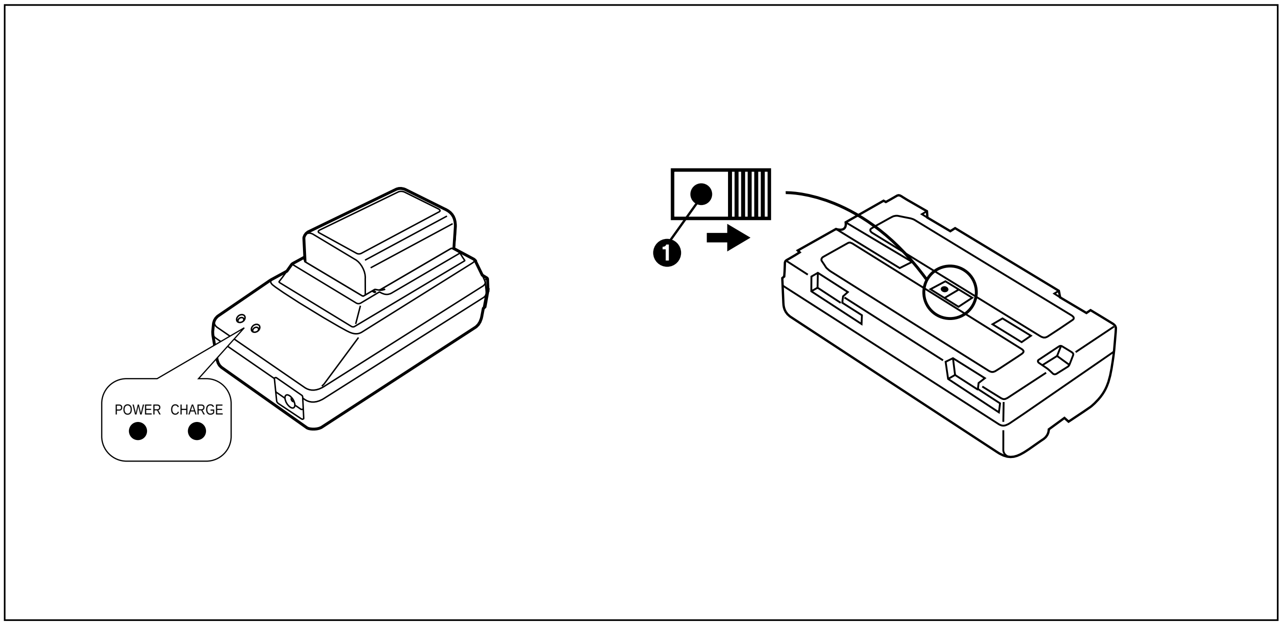
- ●Also disconnect the AC Power Cable.

5 Insert the Battery with ❹ pointing downside.

Removing the Battery

Press the Battery Eject Batton ❺.

- ♦ Hold your hand over the Battery Compartment to prevent the Battery from dropping.
- ♦ Before removing the Battery, set the [POWER ON/OFF] Switch to [OFF].



DEUTSCH

Aufladedauer und maximale Aufnahmedauer für Daueraufnahme

Akku	Aufladedauer	Max. ununterbrochene Aufnahmedauer
Mitgeliefert	120 Min.	60 Min.

(Bei den in der obigen Tabelle aufgeführten Zeiten handelt es sich um Näherungswerte. Die Zeiten in Klammern gelten für den Aufnahmebetrieb mit LCD-Monitor.)
Die obigen zu Ihrer Information angegebenen Zeiten geben die Aufnahmedauer bei einer Umgebungstemperatur von 20 °C und einer relativen Luftfeuchtigkeit von 60 % an. Bei niedrigerer oder höherer Temperatur kann eine längere Aufladedauer nötig sein.

- ♦ Während des Betriebs und des Aufladens kann sich der Akku erwärmen. Auch der Camerarecorder kann während des Einsatzes warm werden.
- ♦ Bei oft wiederholtem Aufnahmestart und -stopp ist die mögliche Aufnahmedauer kürzer als oben angegeben.
- ● Wenn Sie den Akku längere Zeit nicht benutzen, bitte die Vorsichtshinweise für die Aufbewahrung durchlesen (➜ 144).

■ Ladekontrolllampe [CHARGE]

Erleuchtet:	Während des Ladevorgangs
Erloschen:	Der Akku ist voll geladen.

Wenn die Lampe [CHARGE] ständig blinkt

Falls die Temperatur des Akkus extrem niedrig oder hoch ist, blinkt die Lampe [CHARGE] am Netzgerät ständig. Die Lampe blinkt auch ständig, wenn eine Funktionsstörung im Akku oder Netzgerät aufgetreten ist. Einzelheiten finden Sie unter “Hinweise zum Netzgerät” (➜ 136).

Benutzung der Ladezustands-Markierung

Mit Hilfe dieser Markierung lassen sich vollständig aufgeladene Akkus problemlos von entladenen Akkus unterscheiden.
Dazu beispielsweise den geriffelten Schieber so verschieben, daß für vollständig aufgeladene Akkus der rote Punkt (●) ❶ sichtbar ist.

ENGLISH

Charging Time and Maximum Time for Continuous Recording

Battery	Charging Time	Max. Continuous Recording Time
Supplied	120 min.	60 min.

(The times shown in the above chart are approximations. The figures in parentheses show the recording time when using the LCD Monitor.)
The times listed above for your information indicate the duration of recording performed at an ambient temperature of 20°C and 60% relative humidity. The charging time may be longer when you charge the Battery at higher or lower temperature.

- ♦ During use and charging, the Battery becomes warm. The Camera Recorder, too, becomes warm during use.
- ♦ When you repeatedly stop and restart recording, the recording time per Battery is shorter than listed above.
- ● If you do not use the Battery for a long time, please read the Precautions for Storage (➜ 144).

■ Charge Lamp [CHARGE]

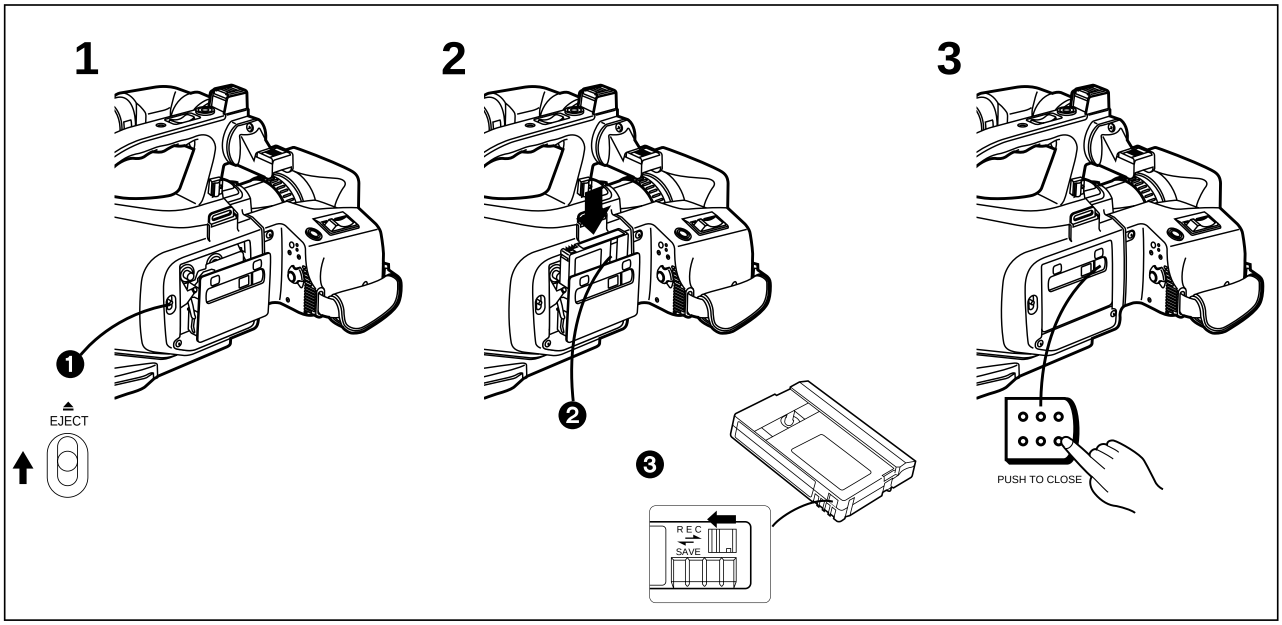
Lighted:	During charging
Off:	The Battery is fully charged.

When the [CHARGE] Lamp Flashes Continuously

If the temperature of the Battery is extremely low or extremely high, the [CHARGE] Lamp on the AC Adapter flashes continuously. It also flashes continuously when some malfunction has occurred in the Battery or the AC Adapter.
For details, read “Notes about the AC Adapter” (➜ 136).

Using the Charge Confirmation Marker

You can use this marker to easily distinguish between charged and discharged Batteries.
For example, slide the knob so that the red dot (●) ❶ is visible after the charging is completed.



DEUTSCH

Einsetzen der Cassette

1 Den Hebel [⏏ EJECT] ❶ nach oben schieben, um das Cassettenfach zu öffnen.

2 Die Cassette einsetzen.

Die Cassette so ausrichten, wie in ❷ oben gezeigt.

3 Den Cassettenfachdeckel schließen und durch Drücken der Taste [PUSH TO CLOSE] verriegeln.

- Wenn der Camerarecorder mit Strom versorgt wird, kann der obige Schritt 1 auch ohne Einschalten des Camerarecorders durchgeführt werden.
- ♦ Beim Einsetzen der Cassette sicherstellen, daß sie richtig ausgerichtet ist, und sie dann bis zum Anschlag gerade nach unten schieben.
- Beim Einsetzen einer Cassette, auf der bereits aufgenommen wurde, zuerst mit der Funktion Kamerasuchlauf (➜ 62) die Position auffinden, ab welcher die neue Aufnahme gemacht werden soll.
- Beim Einsetzen einer neuen Cassette das Band zum Anfang zurückspulen, bevor Sie mit dem Aufnehmen beginnen.

Schutz einer Aufnahme vor unbeabsichtigtem Löschen

Das Öffnen des Löschschutzschiebers an der Cassette ❸ (in Richtung des Pfeils [SAVE] schieben) verhindert das Aufnehmen. Um auf eine so geschützte Cassette wieder aufnehmen zu können, den Löschschutzschieber schließen (in Richtung des Pfeils [REC] schieben).

Hinweis:

Eine Langspiel-Mini DV Cassette (SP/80 min., LP/120 min.), die auf diesem Camerarecorder bespielt wurde, kann nicht auf einem DVCPRO- oder DVCPRO 50-Videorecorder wiedergegeben oder bespielt werden.

ENGLISH

Inserting the Cassette

1 Slide the [⏏ EJECT] Lever ❶ upward to open the Cassette Compartment.

2 Insert the cassette.

Insert the cassette with its window in position ❷.

3 Close the Cassette Compartment and press the [PUSH TO CLOSE] Button to lock the Cassette Compartment.

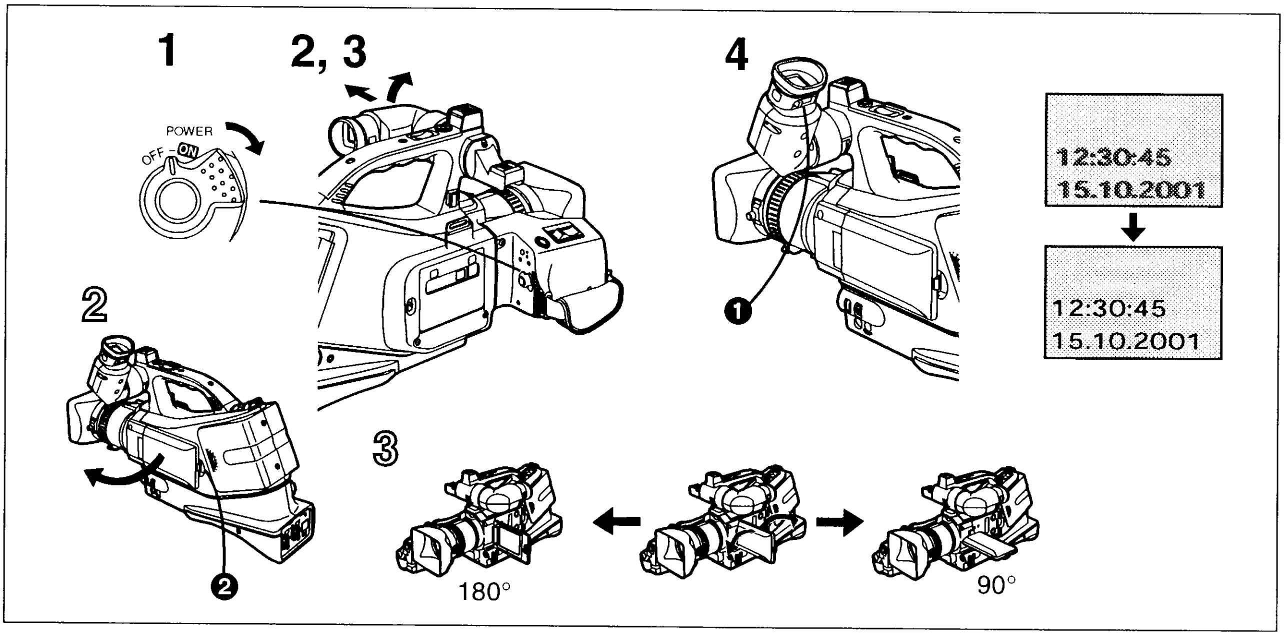
- If the Camera Recorder is supplied with power, the above operation step 1 can be operated without turning on the Camera Recorder.
- ♦ When inserting the cassette, make sure it faces in the right direction and then push in straight down until it stops.
- When you insert a cassette onto which you have recorded before, use the Camera Search Function (➜ 62) to search for the position from which you want to continue recording.
- When you insert a new cassette, rewind the tape to the beginning before starting to record.

Preventing Accidental Erasure of Recordings

Opening the cassette’s erasure prevention slider ❸ (sliding it in the direction of the [SAVE] arrow) prevents recording. To record again, close the erasure prevention slider (slide it in the direction of the [REC] arrow).

Note:

A long-Play Mini DV Cassette (SP:80min., LP120min.) that was recorded on this Camera Recorder should not be used for playback or recording on a DVCPRO or DVCPRO 50 format VCR.



DEUTSCH

Benutzen des Suchers

Vor dem Benutzen des Suchers diesen präzis so auf die Sehkraft Ihrer Augen abstimmen, daß die Anzeigen im Sucher klar und deutlich sichtbar sind.

1 Den Schalter [POWER] auf [ON] stellen.

2 Den Sucher herausziehen.

Der Ausziehabstand des Suchers kann eingestellt werden.

3 Den Sucher nach oben schwenken.

Der Schwenkwinkel des Suchers kann eingestellt werden.

4 Das Okular durch Verschieben des Okularkorrekturknopfes ❶ einstellen.

Die Helligkeit des Suchers kann auf dem Menü eingestellt werden. (➜ 122-128, 134)

- Das Sucherbild kann einen stärkeren Rotstich als das Monitorbild aufweisen, was jedoch normal ist.

Benutzen des LCD-Monitors

Sie können auch aufnehmen, während Sie das Motiv auf dem geöffneten LCD-Monitor betrachten.

1 Den Schalter [POWER] auf [ON] stellen.

2 Den Hebel [PUSH OPEN] schieben und den LCD-Monitor in Pfeilrichtung um ca. 90° öffnen.

Der Sucher schaltet automatisch ab.

Einstellen des Winkels

3 Den Winkel des LCD-Monitors dem gewünschten Aufnahmewinkel entsprechend einstellen.

- ♦ Der LCD-Monitor läßt sich aus seiner normalen senkrechten Stellung um maximal 180° nach oben und vorne ❷ und 90° nach unten ❸ drehen. Ein gewaltsames Drehen über diesen Bereich hinaus könnte den Camerarecorder ernsthaft beschädigen.
- Sie können die Farbsättigung und Helligkeit des LCD-Monitors im Menü regeln. (➜ 122-128, 134)

Schließen des LCD-Monitors

Den LCD-Monitor gegen das Cameragehäuse schwenken, bis der Hebel [PUSH OPEN] mit einem Klick einrastet.

ENGLISH

Using the Finder

Before using the Finder, adjust it to your eyesight so that the indications in the Finder are clear and easy to read.

1 Set the [POWER] Switch to [ON].

2 Slide the Finder outward.

The Finder can be adjusted outward.

3 Slide the Finder upward.

The angle of the Finder can be adjusted upward.

4 Adjust by sliding the Eyepiece Corrector Knob ❶.

You can adjust the brightness of the Finder on the Menu. (➜ 122-128, 134)

- The viewfinder image may have more of a red hue than the monitor TV image; however, this is normal.

Using the LCD Monitor

It is also possible to record while viewing the picture on the opened LCD Monitor.

1 Set the [POWER] Switch to [ON].

2 Push the [PUSH OPEN] Lever and turn out the LCD Monitor approximately 90° in the direction of the arrow.

The Finder turns off.

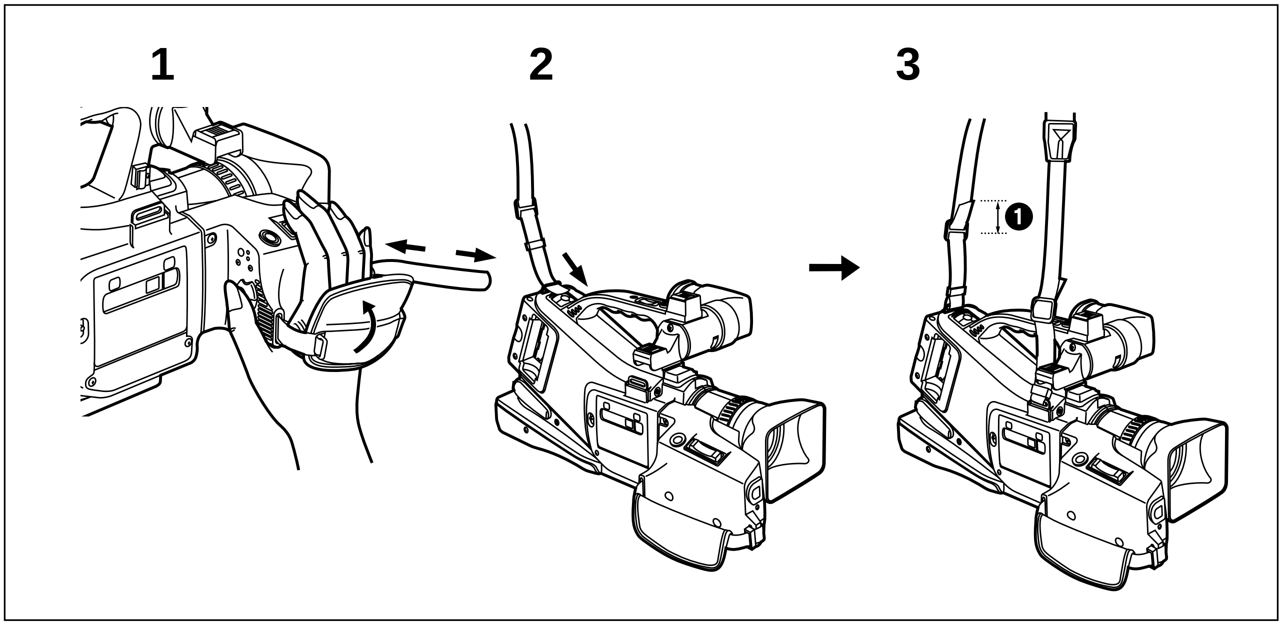
Adjusting the Angle

3 Adjust the angle of the LCD Monitor according to the desired recording angle.

- ♦ The LCD Monitor rotates upward a maximum of 180° ❷ and downward a maximum of 90° ❸ from its normal vertical position. Trying to forcefully rotate it beyond this range could seriously damage the Camera Recorder.
- You can adjust the colour level and brightness of the LCD Monitor on the Menu. (➜ 122-128, 134)

Closing the LCD Monitor

Push the LCD Monitor close until the [PUSH OPEN] Lever locks with a click.



DEUTSCH

Verstellen des Handgriffriemens

Sie können den Handgriffriemen auf die Größe Ihrer Hand einstellen.

1 **Den Verschluß des Handgriffriemens öffnen und seine Länge Ihrer Hand anpassen.**

Befestigen des Schultertrageriemens

Bevor Sie zum Aufnehmen aus dem Hause gehen, empfiehlt es sich, den Schultertrageriemen zu befestigen, um den Camerarecorder gegen Stürze zu sichern.

2 **Das Ende des Schultertrageriemens durch die Halterung für den Schultertrageriemen am Camerarecorder ziehen.**

3 **Das Ende des Riemens zurückbiegen und durch die Schnalle für die Längenverstellung führen.**
Das Ende des Schultertrageriemens sollte mehr als 2 cm ❶ über die Schnalle herausragen, so daß es nicht herausrutschen kann.

ENGLISH

Adjusting the Grip Belt

You can adjust the Grip Belt to the size of your hand.

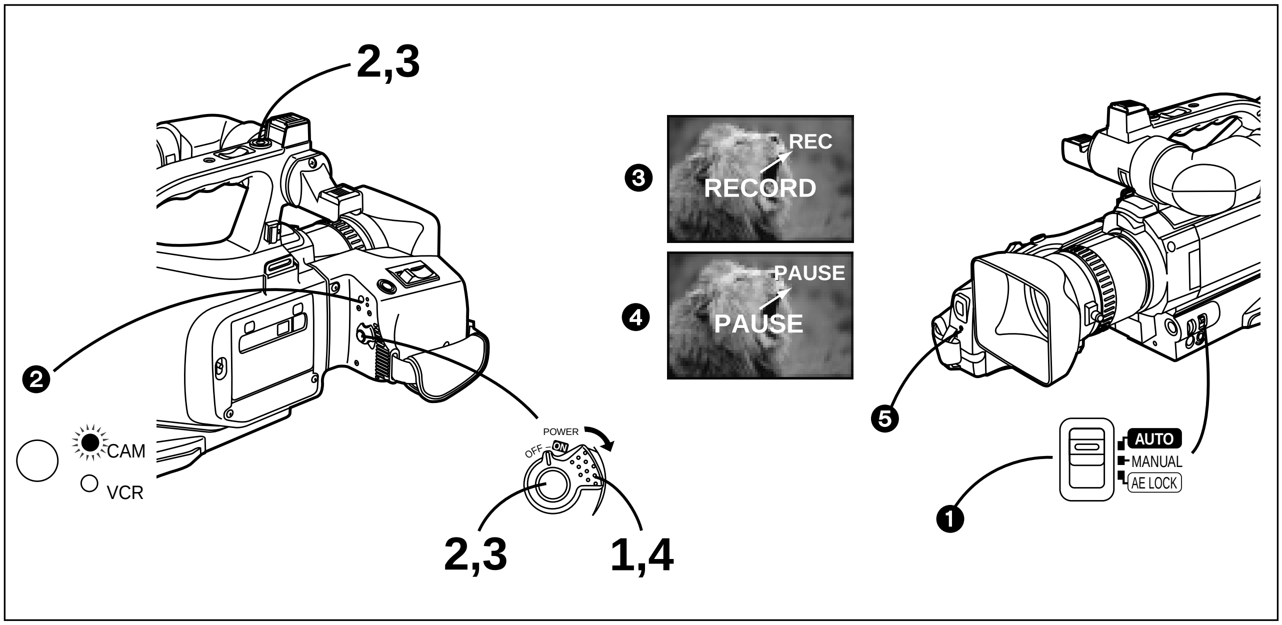
1 **Open the Grip Belt Cover and adjust the length of the Grip Belt.**

Attaching the Shoulder Strap

Before you go recording outside, we recommend that you attach the Shoulder Strap to prevent the Camera Recorder from dropping accidentally.

2 **Pull the end of the Shoulder Strap through the Shoulder Strap Holder on the Camera Recorder.**

3 **Fold the end of the Shoulder Strap back and pull it through the Shoulder Strap Length Adjuster.**
Pull it out more than 2 cm ❶ from the Shoulder Strap Length Adjuster so that it cannot slip off.



DEUTSCH

Aufnehmen

Wenn der Modus-Wahlschalter auf [AUTO] ❶ eingestellt ist, können Sie ganz einfach den Camerarecorder einschalten und durch Drücken der Start-/Stopp-Taste mit dem Aufnehmen beginnen. Der Camerarecorder erledigt dabei die Scharfeinstellung und den Weißabgleich automatisch.
Die Start-Stopp-Taste befindet sich am Griff und dem Halter.

- Je nach Aufnahmesituation und Beleuchtung sind korrekte automatische Scharfeinstellung und Weißabgleich u. U. nicht möglich. In solchen Fällen sollten Sie diese manuell durchführen.
  Scharfeinstellung: (➜ 40); Weißabgleich: (➜ 86, 88)

1 Den Schalter [POWER] auf [ON] stellen.
Die Lampe [CAMERA] leuchtet auf. ❷

2 Die Start-/Stopp-Taste drücken.
Die Aufnahme beginnt.
Die Anzeige [RECORD] erscheint kurz und wechselt dann auf [REC]. ❸

3 Zum Umschalten auf Aufnahmepause: Die Start-/Stopp-Taste erneut drücken.
Die Anzeige [PAUSE] erscheint. ❹

4 Zum Beenden der Aufnahme: Den Schalter [POWER] auf [OFF] stellen.

♦ **Wenn Sie den Camerarecorder länger als 6 Minuten im Modus Aufnahmepause lassen, schaltet er sich automatisch aus, um das Band zu schützen und Akkustrom zu sparen. Um aus diesem Zustand erneut aufzunehmen, den Schalter [POWER] zuerst auf [OFF] und dann wieder auf [ON] stellen.**

Aufnahmeanzeigelampe

Die Aufnahmeanzeigelampe ❺ leuchtet, damit Ihre Akteure wissen, wann die Aufnahme läuft.
Wenn Sie [NEXT MENU] im Menü wählen und dann [REC LAMP] auf [OFF] einstellen, leuchtet die Aufnahmeanzeigelampe nicht mehr auf. (➜ 122-126)

ENGLISH

Recording

When the Mode Selector is set to [AUTO] ❶, you can simply turn on the Camera Recorder and press the Start/Stop Button to start recording, and the focus and white balance are adjusted automatically.
Start/Stop Button is located at the grip and the handle.

- Depending on the light source and recording situation, correct automatic focusing and white balance adjustment may not be possible. In such cases, adjust them manually.
  Focus: (➜ 40); White Balance: (➜ 86, 88)

1 Set the [POWER] Switch to [ON].
The [CAMERA] Lamp lights. ❷

2 Press the Start/Stop Button.
Recording starts.
The [RECORD] Indication appears briefly and then changes to [REC]. ❸

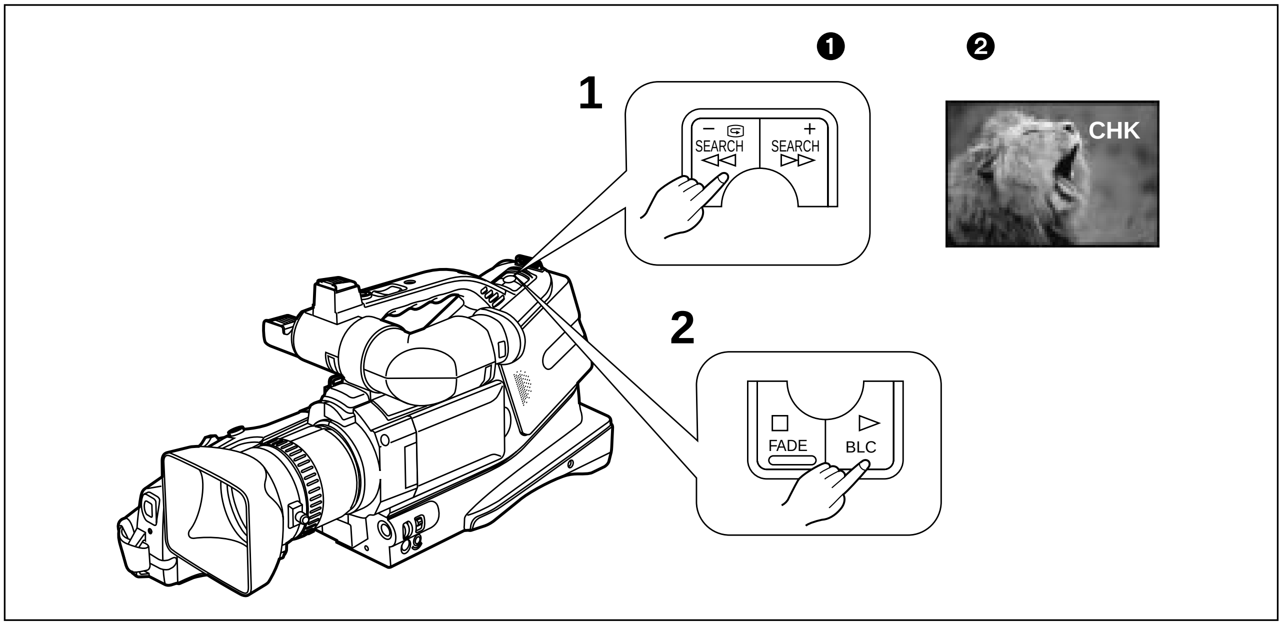
3 To pause recording: Press the Start/Stop Button again.
The [PAUSE] Indication appears. ❹

4 To finish recording: Set the [POWER] Switch to [OFF].

♦ **If you leave the Camera Recorder in the Recording Pause Mode for more than 6 minutes, it automatically switches off to protect the tape and to conserve battery power. To resume recording from this condition, set the [POWER] Switch to [OFF] and then to [ON] again.**

Recording Lamp

The Recording Lamp ❺ lights during recording to indicate that recording is being performed.
If you select [NEXT MENU] on the Menu and then set [REC LAMP] to [OFF], the Recording Lamp does not light. (➜ 122-126)



DEUTSCH

Überprüfen des Endes einer aufgenommenen Szene

(Aufnahme-Prüfung)

Zum Wiedergeben der letzten paar Sekunden einer eben aufgenommenen Szene im Aufnahmepause-Modus.

1 Im Aufnahmepause-Modus die Rückwärts-Suchlauf-Taste [◀◀] ❶ kurz drücken.

Die Anzeige [CHK] erscheint ❷.
Nach beendeter Aufnahme-Prüfung schaltet der Camerarecorder wieder auf Aufnahmepause um.

- Für die Aufnahme-Prüfung muß der Camerarecorder im gleichen Modus (SP oder LP) sein, wie bei der Aufnahme, sonst ist das Wiedergabebild gestört.

Aufnehmen von Szenen mit Gegenlicht (Gegenlicht-Kompensation)

Zum Verhindern, daß der Bildgegenstand aufgrund von Gegenlicht zu dunkel aufgenommen wird.
(Wenn sich der Bildgegenstand zwischen dem Camerarecorder und einer starken Lichtquelle befindet, nennt man dies Gegenlicht.)

1 Die Gegenlicht-Taste [▶] gedrückt halten.

Das Gegenlicht wird so lange kompensiert, wie Sie die Taste gedrückt halten, und der Bildgegenstand wird dadurch heller aufgezeichnet. (Das gesamte Bild wird heller.)

Zurückschalten auf normale Aufnahme
Die Gegenlicht-Taste [▶] loslassen.

ENGLISH

Checking If the Picture Is Recorded

(Recording Check)

To play back the final few seconds of the last recorded scene in the Recording Pause Mode.

1 Press the Reverse Search Button [◀◀] ❶ briefly in the Recording Pause Mode.

The [CHK] Indication ❷ appears.
After checking, the Camera Recorder returns to the Recording Pause Mode.

- For Recording Check, the Camera Recorder must be in the same mode (SP or LP) as used for recording, otherwise the playback picture is distorted.

Recording Backlit Scenes

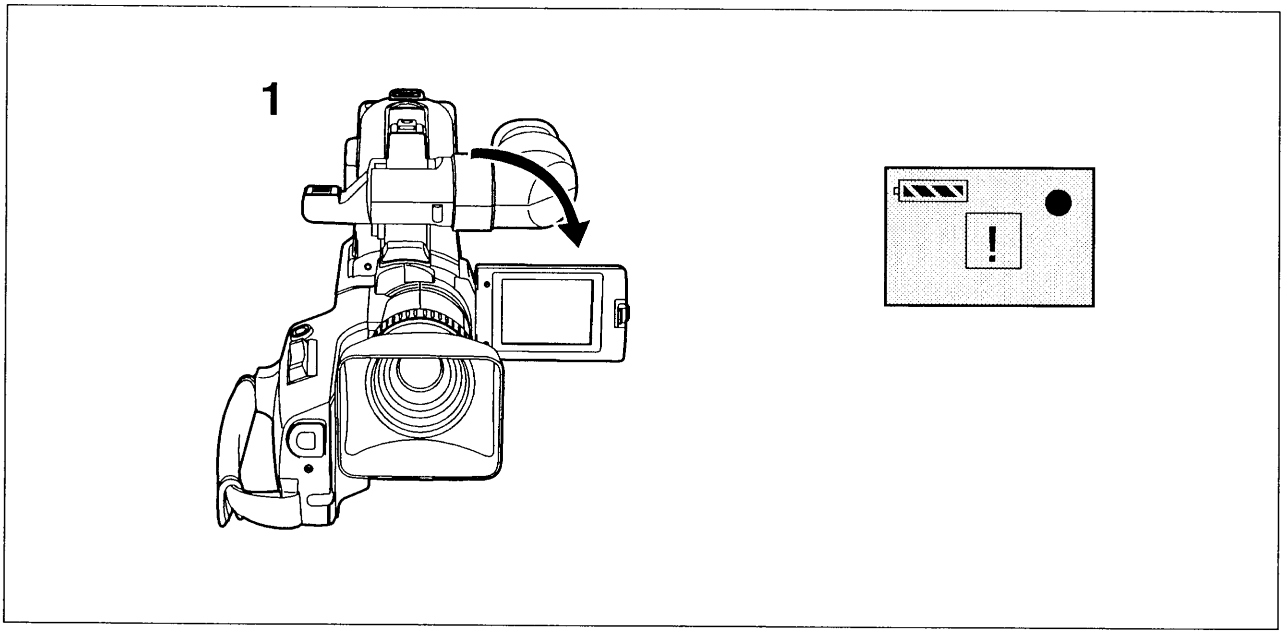
(Backlight Compensation)

To prevent the backlit subject from being recorded very dark.
(Backlight means that the light falls on the subject from behind, i.e. the subject is between the light source and the Camera Recorder.)

1 Keep the Backlight Button [▶] pressed.

The backlight is being compensated as long as you keep the Button pressed, and the subject is recorded more brightly. (The picture brightens up as a whole.)

Returning to Normal Recording
Release the Backlight Button [▶].



DEUTSCH

Sich selbst aufnehmen

(Aufnehmen mit nach vorne gerichtetem LCD-Monitor)

Dies ermöglicht es Ihnen, sich selbst aufzunehmen, während Sie das Bild auf dem LCD-Monitor betrachten, oder den Personen vor dem Camerarecorder das Bild zu zeigen, das aufgenommen wird.

1 Den LCD-Monitor öffnen und so drehen, daß der Bildschirm nach vorne (Objektivseite) gerichtet ist.

Beim Öffnen des LCD-Monitors schaltet sich der Sucher automatisch aus. Wenn Sie den LCD-Monitor jedoch nach vorne richten, erscheint das Bild auch im Sucher.
Auf diese Weise können Sie beim Aufnehmen das Bild im Sucher betrachten, während die Personen vor dem Camerarecorder das Bild auf dem LCD-Monitor prüfen können.

Spiegelbild-Modus

Wenn Sie sich selbst mit nach vorne gerichtetem LCD-Monitor aufnehmen, ist das Bild auf dem Bildschirm seitenrichtig (so wie es aufgenommen wird), und Sie können dies u. U. als ungewöhnlich empfinden. Wenn Sie es vorziehen, Ihr Gesicht als Spiegelbild zu sehen, können Sie aufden Spiegelbild-Modus umschalten:
Dazu [NEXT MENU] im Menü wählen und dann [SELFSHOOT] auf [MIRROR] einstellen. Das Bild auf dem LCD-Monitor ist jetzt ein Spiegelbild. (→ 122-126)
Das Bild wird dabei trotzdem seitenrichtig aufgezeichnet.

♦ Im Spiegelbild-Modus werden nur die folgenden Anzeigen angezeigt:

●: Aufnahme
●❚❚: Aufnahmepause
▭: Akkuspannung

Wenn die allgemeine Warn-/Alarm-Anzeige [!] erscheint, sollten Sie den LCD-Monitor nach hinten richten, damit Sie die effektive Warn-/Alarm-Anzeige überprüfen können.

ENGLISH

Recording Yourself

(Recording with the LCD Monitor Facing Forward)

This makes it possible to record yourself while viewing the picture on the LCD Monitor or to show the persons in front of the Camera Recorder the picture being recorded.

1 Open the LCD Monitor and turn it so that it faces forward (lens side).

Opening the LCD Monitor automatically turns off the Finder. However, when you turn the LCD Monitor forward, the picture also appears in the Finder.
This lets you aim the Camera Recorder and view the picture in the Finder, while the persons in front of the Camera Recorder can check the picture on the LCD Monitor during recording.

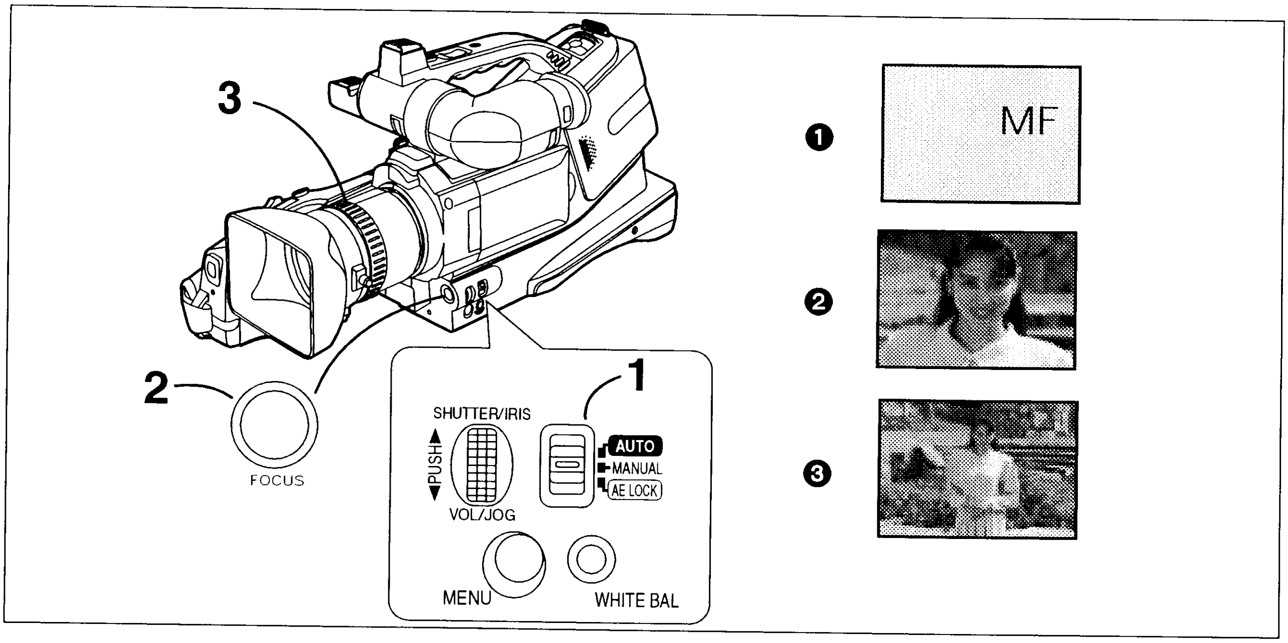
Mirror Mode

When recording yourself with the LCD Monitor facing forward, the picture as it is being recorded might look unusual to you. If you prefer seeing yourself on the LCD Monitor the way you see yourself in a mirror, select the Mirror Mode:
Selecting [NEXT MENU] on the Menu and then setting [SELFSHOOT] to [MIRROR] reverses the picture on the LCD Monitor and shows it as a mirror-image.
(→ 122-126)
However, even if you have selected the Mirror Mode, the picture is recorded in the normal way.

♦ In the Mirror Mode, only the following indications are displayed.

●: Recording
●❚❚: Recording Pause
▭: Remaining Battery Power

When the General Warning/Alarm Indication [!] appears, turn the LCD Monitor backward so that you can confirm the actual Warning/Alarm Indication.



DEUTSCH

Manuelle Scharfeinstellung des Bildgegenstands

(Manuelle Scharfeinstellung)

Dies ermöglicht das manuelle Durchführen der Scharfeinstellung für Motive und Aufnahmesituationen, bei welchen die automatische Scharfeinstellung nicht präzise funktioniert.

1 Den Modus-Wahlschalter auf [MANUAL] einstellen.
Die Anzeige [MNL] erscheint.

2 Die Taste [FOCUS] drücken, so daß die Anzeige [MF] ❶ erscheint.

3 Den Scharfeinstellring am Objektiv drehen, bis der Bildgegenstand scharf ist.

Zurückschalten auf automatische Scharfeinstellung

Die Taste [FOCUS] so lange gedrückt halten, bis die Anzeige [MF] verschwindet.

Tip für die manuelle Scharfeinstellung

- Wenn Sie die Scharfeinstellung in der Weitwinkel-Einstellung des Objektivs durchführen, ist der Bildgegenstand nach dem Heranzoomen u. U. nicht mehr scharf. Um dies zu vermeiden empfiehlt es sich, zuerst den Bildgegenstand bildfüllend heranzuzoomen ❷, bevor Sie auf ihn scharf einstellen, damit er auch beim späteren Zurückoomen immer scharf bleibt ❸.

ENGLISH

Manually Focusing on the Subject

(Manual Focus)

This makes it possible to adjust the focus manually for subjects and recording situations for which automatic focusing is not precise.

1 Set the Mode Selector to [MANUAL].
The [MNL] Indication appers.

2 Press the [FOCUS] Button to make the [MF] Indication ❶ appear.

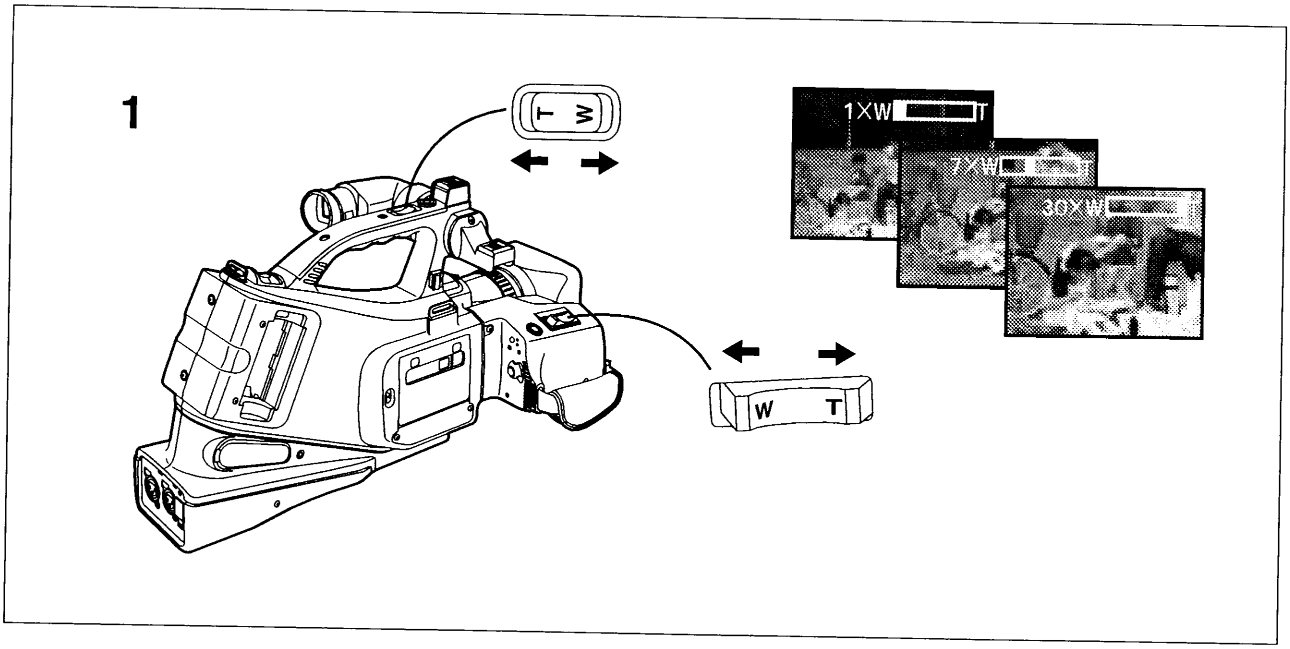
3 Turn the Focus Ring on the Lens to adjust the focus.

Changing Back to Automatic Focusing

Keep the [FOCUS] Button pressed until the [MF] Indication disappears.

Hint for Manual Focus Adjustment

- If you adjust the focus in the wide-angle setting, the subject may go out of focus when you enlarge it. Therefore, enlarge the subject ❷ before you adjust the focus, so that the picture remains focused when you zoom out ❸.



DEUTSCH

Den Bildgegenstand oder den Aufnahmewinkel vergrößern

(Heran- und Zurückzoomen)

Mit Großaufnahmen von Personen und Gegenständen sowie mit Weitwinkel-Aufnahmen von Gruppen und Landschaften geben Sie Ihren Videofilmen besondere Wirkung.
Der Zoomhebel befindet sich am Griff und dem Halter.

1 Um den Bildausschnitt zu verbreitern (Zurückzoomen):
Den Zoomhebel [W/T] gegen [W] drücken.
Um den Bildgegenstand zu vergrößern (Heranzoomen):
Den Zoomhebel [W/T] gegen [T] drücken.

- Beim Griffzoom nimmt die Zoomgeschwindigkeit zu, indem der W/T-Hebel in der T-Richtung gedrückt wird. Am Handgriff können drei verschiedene Geschwindigkeiten gewählt werden.
- Je weiter Sie den Zoomhebel [W/T] gegen [W] oder [T] drücken, desto höher ist die Zoomgeschwindigkeit.
- ♦ Während des Aufnehmens ist die Zoomgeschwindigkeit langsamer als im Aufnahmepause-Modus.

Noch stärkeres Vergrößern des Bildgegenstandes (Digital-Zoom)

Durch Wahl einer der beiden Einstellungen für [D.ZOOM] im Menü können Sie den Bildgegenstand noch weiter vergrößern. (→ 122, 124)

- **24**×: Digitales Zoomen bis 24fach
- **120**×: Digitales Zoomen bis 120fach
- Bis 12fach erfolgt das Zoomen auf optische Weise.
- ♦ Je höher der Vergrößerungsgrad ist, desto niedriger ist die Bildqualität.
- ♦ Wenn Sie [D.ZOOM] im Menü auf [24×] oder [120×] einstellen, erscheint die Anzeige [D.ZOOM].

Aufnehmen von extrem kleinen Gegenständen in Großaufnahme (Makro-Nahaufnahme)

Wenn die Zoomeinstellung 1× beträgt, kann der Camerarecorder bis auf eine Mindestentfernung von ca. 30 mm zwischen Objektiv und Bildgegenstand scharf einstellen. Dies ermöglicht Großaufnahmen von Insekten, Blumen und anderen kleinen Bildgegenständen.

- Wenn Sie auf Tele-Einstellung zoomen, kann der Camerarecorder nur auf Gegenstände scharf einstellen, die mindestens 1,2 Meter entfernt sind.

ENGLISH

Enlarging Your Subject or Widening the Recording Angle

(Zooming In/Out)

Recording close-ups of your subjects and recording wide-angle shots adds special effects to your videos.
Zoom lever is located at the grip and the handle.

1 To record a wider view (Zooming-out):
Push the [W/T] Zoom Lever toward [W].
To enlarge your subject (Zooming-in):
Push the [W/T] Zoom Lever toward [T].

- The Zoom Magnification Indication appears for a few seconds.
- In grip zoom, the zoom speed is increased with the W/T Lever pressed in the direction of T.
  In hand grip, three different speeds can be selected by the [ZOOM SPEED] Switch.
- ♦ During recording, the zooming speed is slower than during recording pause.

Enlarging Your Subjects Even More (Digital Zooming)

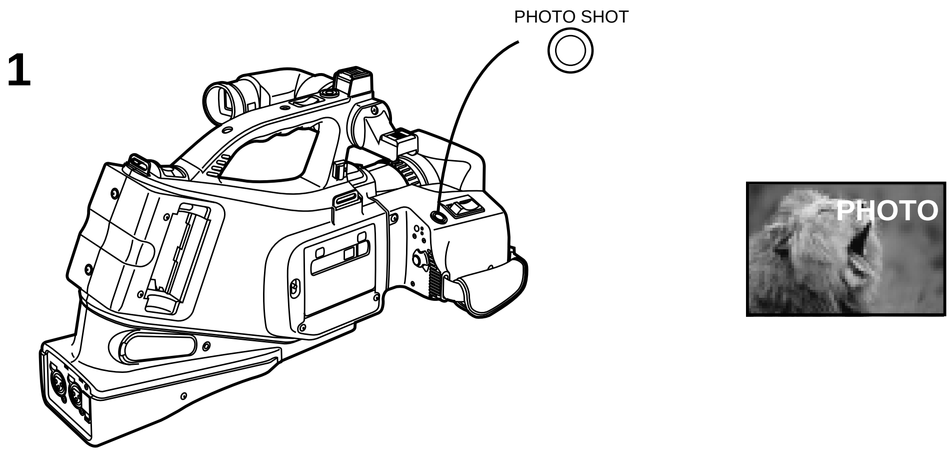
Selecting one of the two settings for [D.ZOOM] on the Menu makes it possible to further enlarge the subject. (→ 122, 124)

- **24**×: Digital zooming up to 24×.
- **120**×: Digital zooming up to 120×.
- Up to 12×, the zooming is done optically.
- ♦ The higher the Digital Zoom Magnification is, the lower is the picture quality.
- ♦ If you set [D.ZOOM] on the Menu to [24×] or [120×], the [D.ZOOM] Indication appears.

Recording Extra Close-up Shots of Small Subjects (Macro Close-up Function)

When the zoom magnification is 1×, the Camera Recorder can focus on subjects down to a distance of approximately 30 mm between lens and subject. This allows recording very small subjects such as insects.

- When you have zoomed to the tele setting, precise focusing is only possible on subjects no closer than 1.2 metres.



DEUTSCH

Benutzen des Camerarecorders als Digital-Fotokamera (Photoshot)

Mit dieser Funktion können Sie Standbilder je 7 Sekunden lang zusammen mit laufendem Ton aufnehmen.
Dies ist beispielsweise praktisch für Bilder, die Sie auf einem Video-Drucker drucken möchten.

1 Die Taste [PHOTO SHOT] drücken. (Diese Funktion kann auch während einer laufenden Aufnahme ausgelöst werden.)

Der Camerarecorder nimmt ein Standbild ca. 7 Sekunden lang auf und schaltet dann auf Aufnahmepause um.

- Das Bild auf dem LCD-Monitor oder im Sucher steht ebenfalls still.
  Wenn Sie [NEXT MENU] im Menü wählen und dann [SHTR EFFECT] auf [ON] einstellen, blinkt der Bildschirm kurz, und ein simuliertes Verschluß-Klickgeräusch ist hörbar, wenn Sie die Taste [PHOTO SHOT] drücken.
- Mit den Standbildern, die Sie im Photoshot-Modus aufgenommen haben, können Sie folgendes durchführen:
  - Index-Suchlauf (➜ 66)
    (Ganz nahe am Bandanfang aufgenommene Bilder lassen sich damit u. U. nicht finden.)
- ♦ Wenn Sie [NEXT MENU] im Menü wählen und dann [SHTR EFFECT] auf [ON] einstellen, werden der visuelle Verschlußeffekt und das Verschlußgeräusch ebenfalls mit aufgezeichnet. (Der effektive Aufnahmestart erfolgt mit geringfügiger Verzögerung nach Drücken der Taste [PHOTO SHOT]. Der visuelle Verschlußeffekt und das Klickgeräusch können u. U. mit geringer Verzögerung nach Aufnahmebeginn auftreten.)
- ♦ Die Bildqualität ist etwas schlechter.
- ♦ Beim Einsatz der Photoshot-Funktion verschwindet die Bandrestzeit-Anzeige. Beim erneuten Starten der normalen Aufnahme erscheint die Bandrestzeit-Anzeige wieder.

ENGLISH

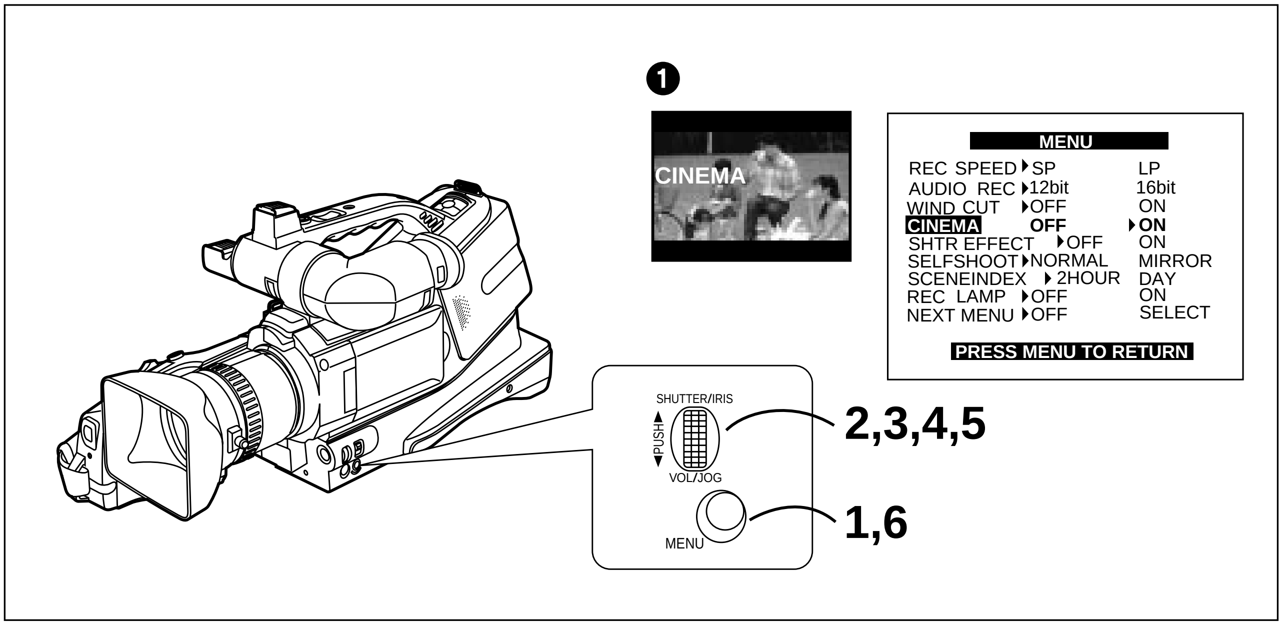
Using the Camera Recorder as a Digital Still Camera (Photoshot)

With this function, you can record still pictures with sound for approximately 7 seconds each.
This function is convenient for example for pictures that you want to print on a Video Printer.

1 Press the [PHOTO SHOT] Button. (This function can be used during recording, too.)

The Camera Recorder records a still picture for approximately 7 seconds and then switches over to the Recording Pause Mode.

- The image on the LCD Monitor or in the Finder also stands still.
  If you select [NEXT MENU] on the Menu and set [SHTR EFFECT] to [ON], the screen blinks briefly and a simulated shutter click sound can be heard when you press the [PHOTO SHOT] Button.
- With the still pictures that you have recorded in the Photoshot Mode, you can do the following:
  - Index Search (➜ 66)
    (However, searching for the picture(s) recorded at the beginning of the tape may not be possible.)
- ♦ If you select [NEXT MENU] on the Menu and set [SHTR EFFECT] to [ON], the visual shutter effect and the click sound are also recorded. (There is a slight delay between pressing the [PHOTO SHOT] Button and the actual start of recording. The visual shutter effect and click sound may occur with slight delay after recording of the still picture has started.)
- ♦ The picture quality deteriorates slightly.
- ♦ Using the Photoshot Function makes the Remaining Tape Time Indication disappear. Resuming normal recording makes the Remaining Tape Time Indication appear again.



MENU

REC SPEED	▸SP	LP
AUDIO REC	▸12bit	16bit
WIND CUT	▸OFF	ON
CINEMA	**OFF**	**▸ON**
SHTR EFFECT	▸OFF	ON
SELFSHOOT	▸NORMAL	MIRROR
SCENEINDEX	▸2HOUR	DAY
REC LAMP	▸OFF	ON
NEXT MENU	▸OFF	SELECT

PRESS MENU TO RETURN

DEUTSCH

Aufnehmen im Kinoformat-Modus

(Kinoformat-Modus)

Dieser Modus ermöglicht das Aufnehmen in einem kinobildschirm-ähnlichen Breitbild-Format.

1. **Die Taste [MENU] drücken.**
   Das Menü erscheint.
2. **Den Regler [PUSH] drehen, um [NEXT MENU] zu wählen.**
3. **Den Regler [PUSH] drücken, um [SELECT] zu wählen.**
4. **Den Regler [PUSH] drehen, um [CINEMA] zu wählen.**
5. **Den Regler [PUSH] drücken, um [ON] zu wählen.**
6. **Die Taste [MENU] zweimal drücken, um das Menü auszublenden.**

- ♦ Im Kinoformat-Modus erscheinen schwarze Balken am oberen und unteren Bildrand auf dem LCD-Monitor und Sucherbildschirm. ❶

Ausschalten des Kinoformat-Modus
[CINEMA] auf dem Menü auf [OFF] stellen.

ENGLISH

Recording in the Cinema Mode

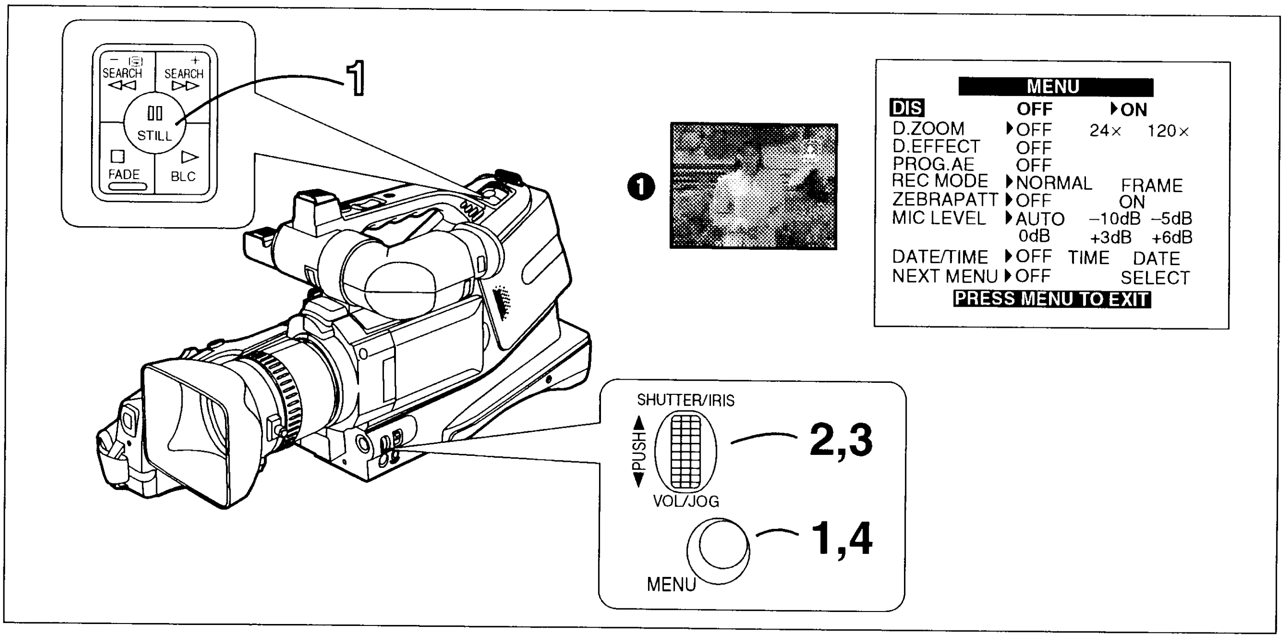
(Cinema Mode)

This mode lets you record in the cinema-like wide-screen format.

1. **Press the [MENU] Button.**
   The Menu appears.
2. **Turn the [PUSH] Dial to select [NEXT MENU].**
3. **Press the [PUSH] Dial to select [SELECT].**
4. **Turn the [PUSH] Dial to select [CINEMA].**
5. **Press the [PUSH] Dial to select [ON].**
6. **Press the [MENU] Button twice to exit the Menu.**

- ♦ In the Cinema Mode, black bars appear at the top and bottom of the LCD Monitor and the Finder screen. ❶

Cancelling the Cinema Mode
Set [CINEMA] on the Menu to [OFF].



```
                MENU
DIS           OFF        ▸ON
D.ZOOM       ▸OFF       24×     120×
D.EFFECT      OFF
PROG.AE       OFF
REC MODE     ▸NORMAL      FRAME
ZEBRAPATT    ▸OFF          ON
MIC LEVEL    ▸AUTO      –10dB  -5dB
               0dB      +3dB   +6dB
DATE/TIME    ▸OFF   TIME    DATE
NEXT MENU    ▸OFF          SELECT
          PRESS MENU TO EXIT
```

DEUTSCH

Aufnehmen mit minimiertem Verwackeln (Digital-Bildstabilisator)

In Aufnahmesituationen, wo Kamerawackeln oft auftritt, beispielsweise bei Tele-Aufnahmen oder beim Aufnehmen im Gehen, können Sie mit dieser Funktion das Bild stabilisieren.

♦ Bei extrem starkem Kamerawackeln läßt sich das Bild u. U. nicht stabilisieren.

1 Die Taste [MENU] drücken.

Das Menü erscheint.

2 Den Regler [PUSH] drehen, um [DIS] zu wählen.

3 Den Regler [PUSH] drücken, um [ON] zu wählen.

4 Die Taste [MENU] drücken, um das Menü auszublenden.

Die Anzeige [▣] ❶ erscheint.

♦ An einem dunklen Ort funktioniert die Digital-Bildstabilisator-Funktion u. U. nicht. In diesem Fall blinkt die Anzeige [▣].

♦ Unter Leuchtstofflampen-Beleuchtung schwankt die Bildhelligkeit u. U., und die Farben sind möglicherweise unnatürlich.

♦ Die Bildqualität verschlechtert sich u. U. geringfügig.

♦ Der Bildgegenstand erscheint etwas vergrößert im Bild.

- Beim Einsatz eines Stativs, empfiehlt es sich, [DIS] auf [OFF] einzustellen.

Ausschalten der Digital-Bildstabilisator-Funktion

[DIS] im Menü auf [OFF] stellen.

Aufnehmen von Standbildern

Mit dieser Funktion können Sie Standbilder von beliebiger Dauer zusammen mit laufendem Ton entweder während einer normalen Aufnahme oder aus dem Aufnahmepause-Modus aufnehmen.

1 Die Standbild-Taste [❚❚] drücken.

Ausschalten der Standbild-Aufnahmefunktion

Die Standbild-Taste [❚❚] erneut drücken.

ENGLISH

Recording with Minimised Camera Shake (Digital Image Stabilizer)

In recording situations where shaking of the Camera Recorder is likely to happen, for example when you have zoomed in on a distant subject or when you record while walking, you can use this function to stabilize the image.

♦ In case of very strong camera shake, it may not be possible to stabilize the picture.

1 Press the [MENU] Button.

The Menu appears.

2 Turn the [PUSH] Dial to select [DIS].

3 Press the [PUSH] Dial to select [ON].

4 Press the [MENU] Button to exit the Menu.

The [▣] Indication ❶ appears.

♦ In a dimly lit place, the Digital Image Stabilizer Function may not work. In this case, the [▣] Indication flashes.

♦ Under fluorescent lamps, the picture brightness may fluctuate and the colours may be unnatural.

♦ The picture quality may deteriorate slightly.

♦ The subject becomes slightly enlarged.

- When you use a tripod, we recommend that you set [DIS] to [OFF].

Cancelling the Digital Image Stabilizer Function

Set [DIS] on the Menu to [OFF].

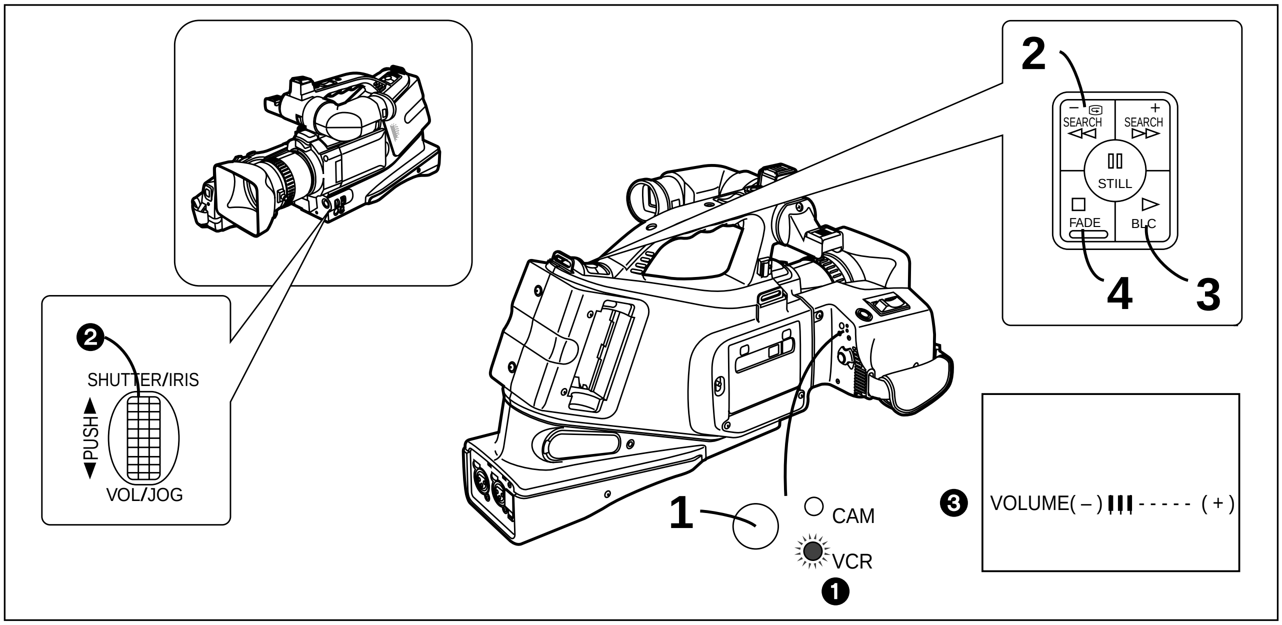
Recording Still Pictures

You can record still pictures of any desired duration together with sound either in the middle of a normal recording or from the Recording Pause Mode.

1 Press the Still Button [❚❚].

Cancelling the Still Picture Recording Mode

Press the Still Button [❚❚] again.



DEUTSCH

Betrachten der soeben aufgenommenen Szenen auf dem Camerarecorder (Wiedergabe)

Sie können aufgezeichnete Szenen sofort nach dem Aufnehmen wiedergeben.

1 Die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] ❶ aufleuchtet.

2 Die Rückspultaste [◀◀] drücken, um das Band zurückzuspulen.

- Das Band bis zu der Bandstelle zurückspulen, an der Sie mit dem Aufnehmen begannen.
- Am Bandanfang wird das Rückspulen automatisch gestoppt.
- Der Kurzvorlauf (FF) ist etwas kürzer als der Standardvorlauf, was jedoch normal ist.

3 Die Wiedergabe-Taste [▶] drücken, um die Wiedergabe zu starten.

**4 Zum Stoppen der Wiedergabe:
Die Stopp-Taste [■] drücken.**

■ Aussteuern des Tonaufnahmepegels

Den Regler [PUSH] ❷ so lange gedrückt halten, bis die Anzeige [VOLUME] ❸ erscheint. Anschließend den Regler [PUSH] drehen, um den Tonaufnahmepegel zu regeln.

Um die Anzeige [VOLUME] auszublenden, den Regler [PUSH] so lange gedrückt halten, bis die Anzeige [VOLUME] verschwunden ist.

Einblenden der Datum-/Uhrzeit-Anzeige

Dieser Camerarecorder zeichnet das Aufnahmedatum und die Uhrzeit automatisch als Teil des Zusatzcodes (➜ 148), d. h. nicht direkt im Bild, auf.

Um die Datum-/Uhrzeit-Anzeige einzublenden, [DATE/TIME] im Menü auf die gewünschte Anzeige einstellen.

ENGLISH

Viewing the Just Recorded Scenes on the Camera Recorder (Playback)

You can play back recorded scenes right after recording.

1 Press the [VCR/CAMERA] Button so that the [VCR] Lamp ❶ lights.

2 Press the Rewind Button [◀◀] to rewind the tape.

- Rewind the tape to the point where the recording started.
- If the tape reaches the beginning, rewinding automatically stops.
- The short FF is a little shorter than standard; however, this is normal.

3 Press the Play Button [▶] to start playback.

**4 To stop playback:
Press the Stop Button [■].**

■ Adjusting the Sound Volume

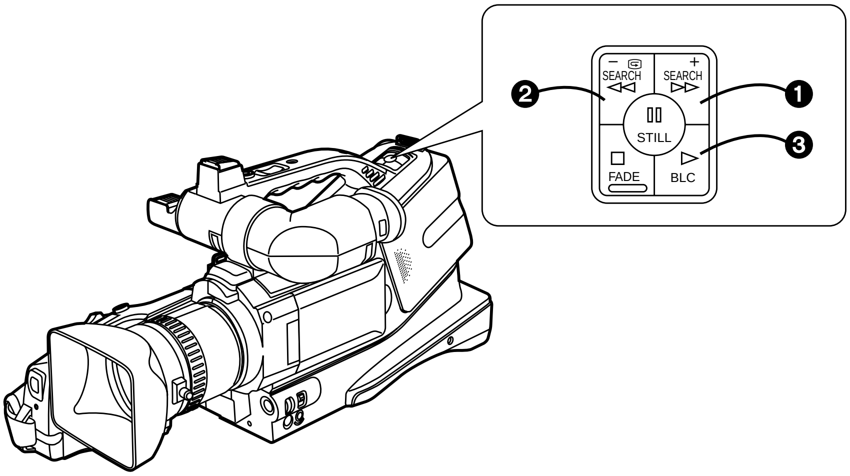
Keep the [PUSH] Dial ❷ pressed until the [VOLUME] Indication ❸ appears. Then, turn the [PUSH] Dial to adjust the volume.

To make the [VOLUME] Indication disappear, press the [PUSH] Dial again until the [VOLUME] Indication has disappeard.

Making the Date/Time Indication Appear

This Camera Recorder automatically records the date and time, however not directly in the picture but as part of the sub code (➜ 148).

To make the Date/Time Indication appear, set [DATE/TIME] on the Menu to the desired setting.



DEUTSCH

Auffinden einer gewünschten Szene für die Wiedergabe

Bildsuchlauf vorwärts (Cue)

Die Vorwärts-Suchlauf-Taste [▶▶] ❶ während der Wiedergabe gedrückt halten.

Bildsuchlauf rückwärts (Review)

Die Rückwärts-Suchlauf-Taste [◀◀] ❷ während der Wiedergabe gedrückt halten.

Suchlauf-Verriegelungs-Funktion

Für längeren Bildsuchlauf vorwärts (Cue) oder rückwärts (Review) die Vorwärts-Suchlauf-Taste [▶▶] bzw. die Rückwärts-Suchlauf-Taste [◀◀] nur kurz drücken. Dadurch wird die entsprechende Funktion verriegelt, und die Taste muß nicht dauernd gedrückt gehalten werden.

- Zum Zurückschalten auf normale Wiedergabe, die Wiedergabe-Taste [▶] ❸ drücken.
- Beim Bildsuchlauf vorwärts (Cue) und rückwärts (Review) können Bilder mit schnellen Bewegungen mosaikartige Muster enthalten.

Hyper-Check-Funktion

- Wenn Sie während dem Vorspulen die Vorspultaste [▶▶] oder während dem Rückspulen die Rückspultaste [◀◀] drücken, schaltet der Camerarecorder so lange auf Bildsuchlauf vorwärts (Cue) bzw. Bildsuchlauf rückwärts (Review) um, wie Sie die Taste gedrückt halten.

♦ Am Anfang und Ende des Bildsuchlaufs vorwärts oder rückwärts treten u. U. vorübergehend Bildstörungen auf.

ENGLISH

Searching for a Scene You Want to Play Back

Cue Playback

Keep the Cue Button [▶▶] ❶ pressed during playback.

Review Playback

Keep the Review Button [◀◀] ❷ pressed during playback.

Search Lock Function

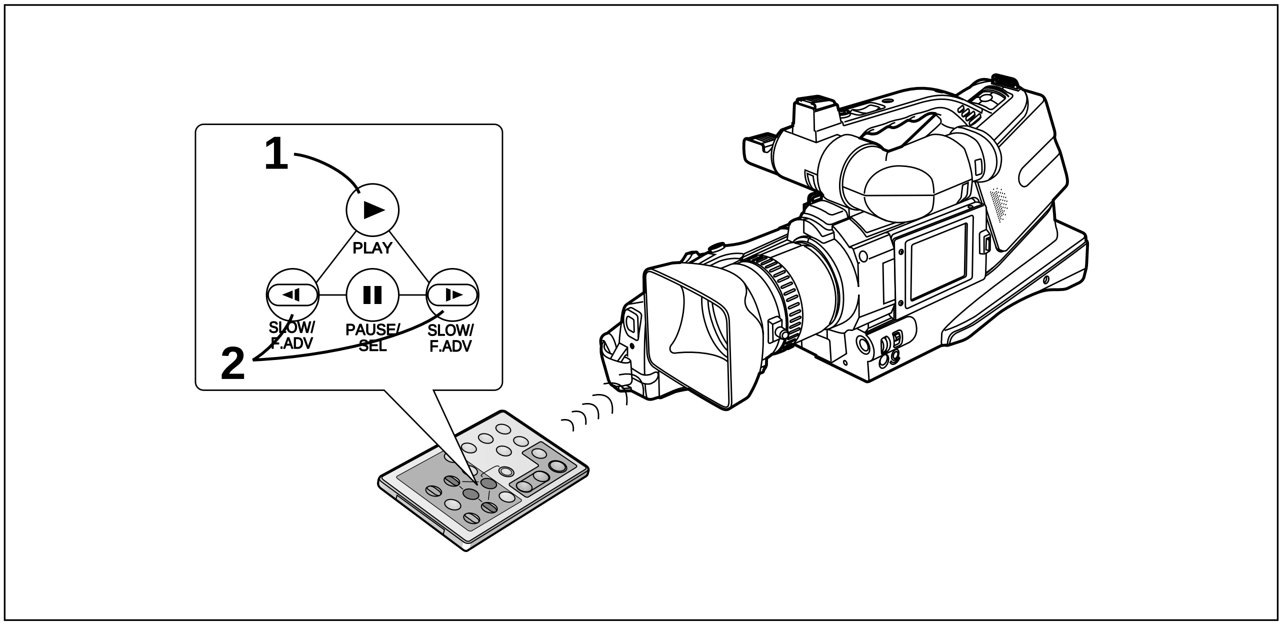
For longer Cue or Review Playback, press the Cue Button [▶▶] or the Review Button [◀◀] only briefly. As this locks the search function, you do not need to keep the button pressed for a long time.

- To resume normal playback, press the Play Button [▶]. ❸
- In Cue and Review Playback, pictures with fast-moving subjects may contain mosaic-like patterns.

Hyper Check Function

- If you press the Fast-forward Button [▶▶] during fast-forwarding of the tape or the Rewind Button [◀◀] during rewinding of the tape, Cue Playback or Review Playback continues for as long as you keep the Button pressed.

♦ Before and after activating Cue Playback or Review Playback, the picture may momentarily be distorted.



DEUTSCH

Wiedergabe in Zeitlupe

(Zeitlupen-Wiedergabe)

1 Die Wiedergabe-Taste [▶] drücken.

2 Die Zeitlupen-/Einzelbild-Taste [◂▮] oder [▮▸] auf der Fernbedienung drücken.

Beim Drücken der Taste [◂▮] erfolgt die Zeitlupen-Wiedergabe in Rückwärtsrichtung und beim Drücken der Taste [▮▸] in Vorwärtsrichtung.

Im SP-Modus aufgenommene Szenen werden mit ca. 1/5 der Normalgeschwindigkeit wiedergegeben.
Im LP-Modus aufgenommene Szenen werden mit ca. 1/3 der Normalgeschwindigkeit wiedergegeben.

Zurückschalten auf normale Wiedergabe

Die Wiedergabe-Taste [▶] drücken.
Die Wiedergabe wird mit Normalgeschwindigkeit fortgesetzt.

- Während der Zeitlupen-Wiedergabe in Rückwärtsrichtung ist die Timecode-Anzeige u. U. nicht präzise.

ENGLISH

Playing Back in Slow Motion

(Slow Motion Playback)

1 Press the Play Button [▶].

2 Press the Slow Motion/Frame Advance Button [◂▮] or [▮▸] on the Remote Controller.

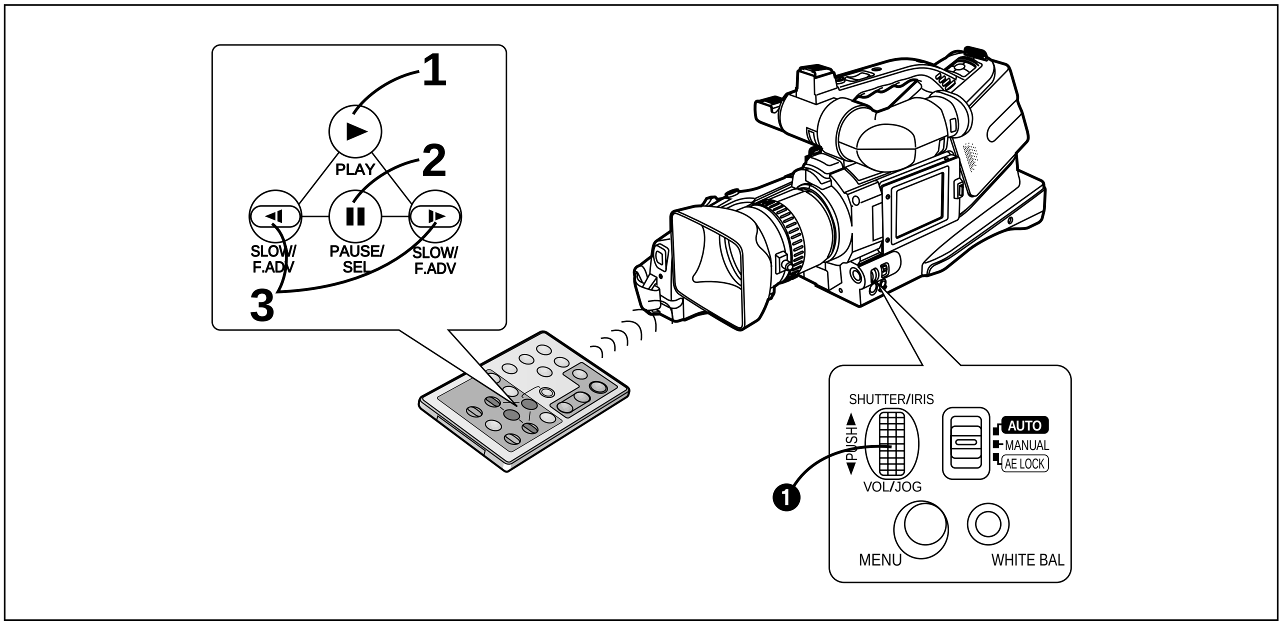
Pressing the [◂▮] Button starts slow motion playback in reverse direction, and pressing the [▮▸] Button starts slow motion playback in forward direction.

Scenes recorded in the SP Mode are played back at approximately 1/5th of the normal speed.
Scenes recorded in the LP Mode are played back at approximately 1/3rd of the normal speed.

Resuming Normal Playback

Press the Play Button [▶].
Playback continues with normal speed.

- During slow motion playback in reverse direction, the Time Code Indication may not be accurate.



DEUTSCH

Wiedergabe von Standbildern und Einzelbild-Fortschaltung

(Standbild-/Einzelbild-Wiedergabe)

Sie können das Geschehen auf dem Bildschirm während der Wiedergabe stoppen und dann Standbilder Bild um Bild wiedergeben.

1. **Die Wiedergabe-Taste [▶] drücken.**

2. **Die Pausentaste [❚❚] drücken.**
   Die Wiedergabe wird im Standbild-Modus gestoppt.

3. **Die Zeitlupen-/Einzelbild-Taste [◂❚] oder [❚▸] auf der Fernbedienung drücken.**
   Beim Drücken der Taste [◂❚] erfolgt die Einzelbild-Wiedergabe in Rückwärtsrichtung und beim Drücken der Taste [❚▸] in Vorwärtsrichtung.

Zurückschalten auf normale Wiedergabe

Die Wiedergabe-Taste [▶] drücken.
Die Wiedergabe wird mit Normalgeschwindigkeit fortgesetzt.

- ● Wenn Sie während der Einzelbild-Wiedergabe die Taste [❚▸] auf der Fernbedienung länger als 1 Sekunde gedrückt halten, schaltet der Camerarecorder auf Zeitlupen-Wiedergabe mit langsamerer Geschwindigkeit als im normalen Zeitlupen-Modus um.
- ♦ Wenn Sie den Camerarecorder länger als 6 Minuten im Modus Standbild-Wiedergabe lassen, schaltet er automatisch auf den Stopp-Modus um, damit die Videoköpfe gegen übermäßige Abnutzung geschützt werden.
- ♦ Während der Einzelbild-Wiedergabe ist die Timecode-Anzeige u. U. nicht präzise.

Benutzen der Jog-Wiedergabe-Funktion

Durch Drehen des Jog-Reglers (Regler [PUSH]) ❶ am Camerarecorder im Standbild-Wiedergabe-Modus können Sie ebenfalls Einzelbild-Wiedergabe in Vorwärts- oder Rückwärtsrichtung durchführen.

ENGLISH

Playing Back Still Pictures and Advancing Them One by One

(Still Playback/Still Advance Playback)

You can freeze the action during playback and advance the still pictures one by one.

1. **Press the Play Button [▶].**

2. **Press the Pause Button [❚❚].**
   The playback picture stops in the Still Playback Mode.

3. **Press the Slow Motion/Frame Advance Button [◂❚] or [❚▸] on the Remote Controller.**
   Pressing the [◂❚] Button advances the still picture frame by frame in reverse direction. Pressing the [❚▸] Button advances the still picture frame by frame in forward direction.

Resuming Normal Playback

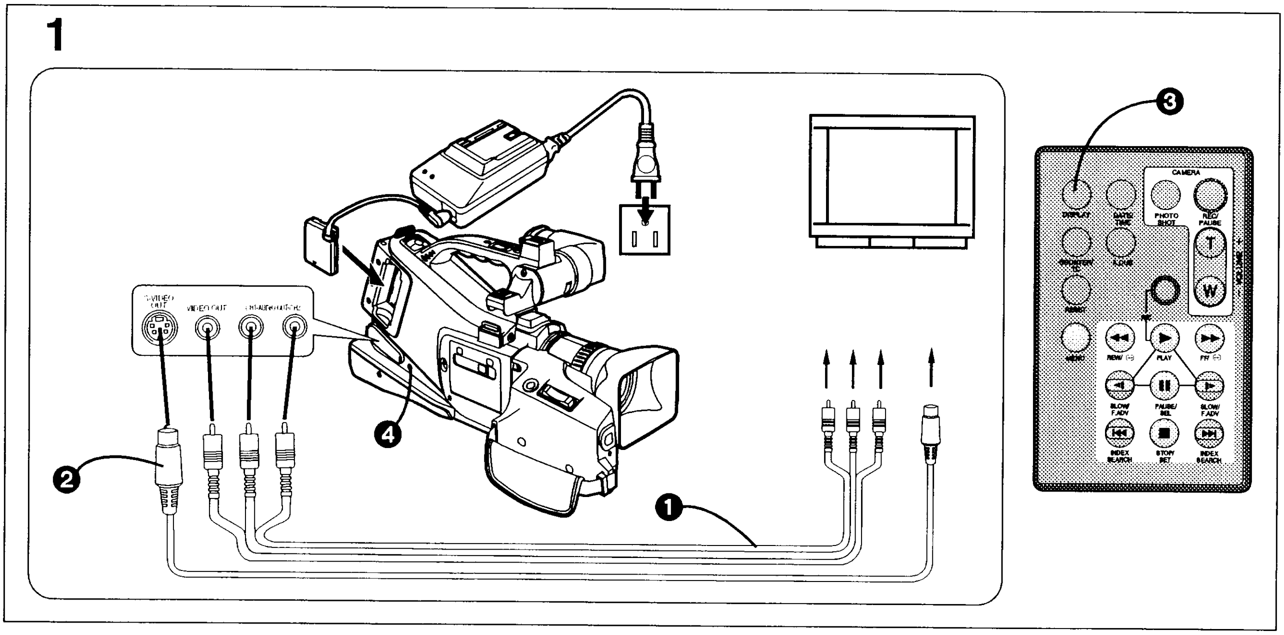
Press the Play Button [▶].
Playback continues with normal speed.

- ● If you keep the [❚▸] Button on the Remote Controller pressed for more than 1 second during Still Advance Playback, the Camera Recorder switches over to the Slow Motion Playback Mode with slower speed than in the normal Slow Motion Playback Mode.
- ♦ If you leave the Camera Recorder in the Still Playback Mode for more than 6 minutes, it switches over to the Stop Mode to protect the video heads against excessive wear.
- ♦ During Still Advance Playback, the Time Code Indication may not be accurate.

Using the Jog Dial (Jog Playback)

By turning the Jog Dial ([PUSH] Dial) ❶ on the Camera Recorder in the Still Playback Mode, you can advance the still pictures one by one in forward or reverse direction.

1



DEUTSCH

Wiedergabe auf einem Fernseher

1 Die Video- und Audio-Ausgangsbuchsen mit den Video- und Audio-Eingangsbuchsen am Fernsehgerät verbinden.

Das AV-Kabel ❶ für die Anschlußverbindung zum Fernsehgerät verwenden. Falls das Fernsehgerät mit einer S-Video-Buchse ausgestattet ist, auch das S-Video-Kabel ❷ anschließen.

- ♦ Vor dem Anschließen den Camerarecorder und das Fernsehgerät ausschalten.
- ♦ Bei der Wiedergabe einer Cassette, deren Aufzeichnung Kopierschutzsignale enthält, wird der Bildschirm schwarz. Die mit diesem Camerarecorder aufgezeichneten Szenen enthalten selbstverständlich keine Kopierschutzsignale.

Einblenden der Anzeigen auf dem Fernsehbildschirm

Die Taste [DISPLAY] ❸ auf der Fernbedienung drücken. Die Anzeigen des Camerarecorders erscheinen dadurch auf dem Fernsehbildschirm.

Tonwiedergabe durch einen Kopfhörer

Für die Tonwiedergabe durch einen Kopfhörer können Sie diesen an die Buchse [PHONES] ❹ anschließen. In diesem Fall wird der Ton jedoch auch durch den eingebauten Lautsprecher wiedergegeben. Um den Ton vom Lautsprecher abzuschalten, können Sie die Lautstärke ganz senken (➜ 50).

ENGLISH

Playing Back on a TV

1 Connect the Video and Audio Output Sockets to the Video and Audio Input Sockets on the TV.

Use the AV Cable ❶ to connect to the TV. If your TV is equipped with an S-Video Socket, also connect the S-Video Cable ❷.

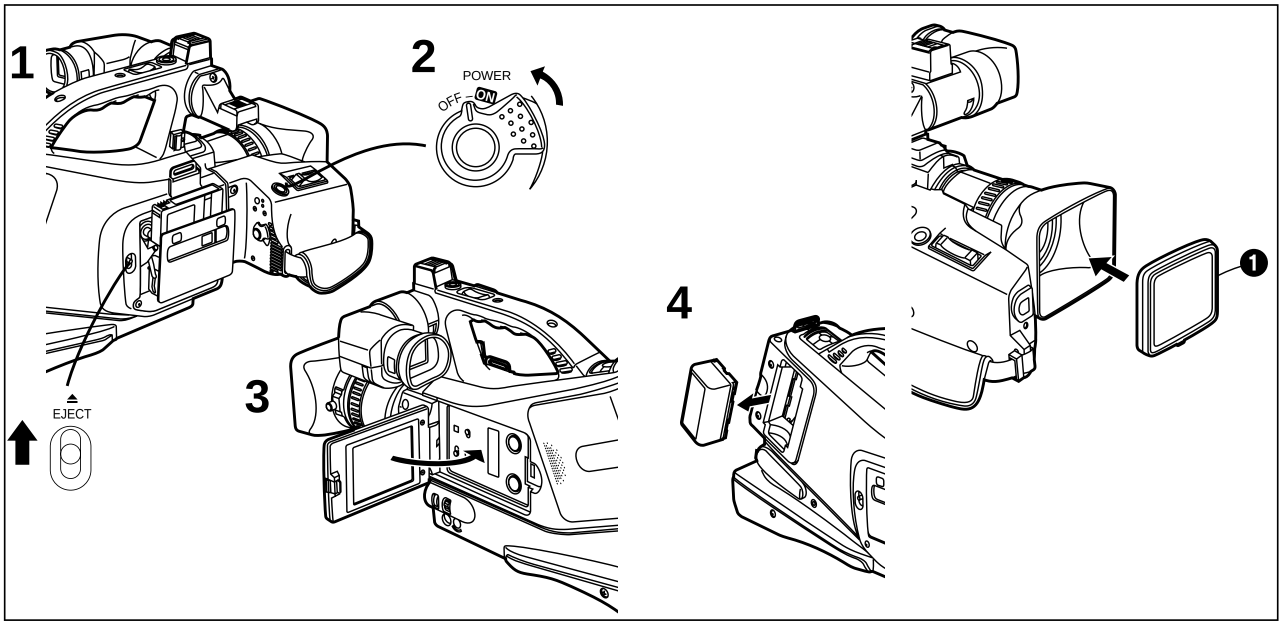
- ♦ Before connecting, turn off both the Camera Recorder and the TV.
- ♦ If a cassette recorded with copyright protection signal is played back, the screen becomes black. However, scenes recorded with this Camera Recorder do not contain a copyright protection signal.

Making the Indications Appear on the TV Screen

Press the [DISPLAY] Button ❸ on the Remote Controller. The On-Screen Indications also appear on the TV screen.

Playing Back the Sound via Headphones

Using the [PHONES] ❹ allows you to listen to the playback sound via headphones.
Even if the sound is played back via headphones, the sound from the Camera Recorder's built-in speaker can also be heard. If you want to mute the sound from the speaker, lower the volume (➜ 50).



DEUTSCH

Nach dem Gebrauch

1. **Die Cassette herausnehmen. (➜ 26)**
2. **Den Schalter [POWER] auf [OFF] stellen.**
3. **Den Sucher in den Camerarecorder zurückschieben und den LCD-Monitor schließen.**
4. **Den Akku herausnehmen. (➜ 22)**

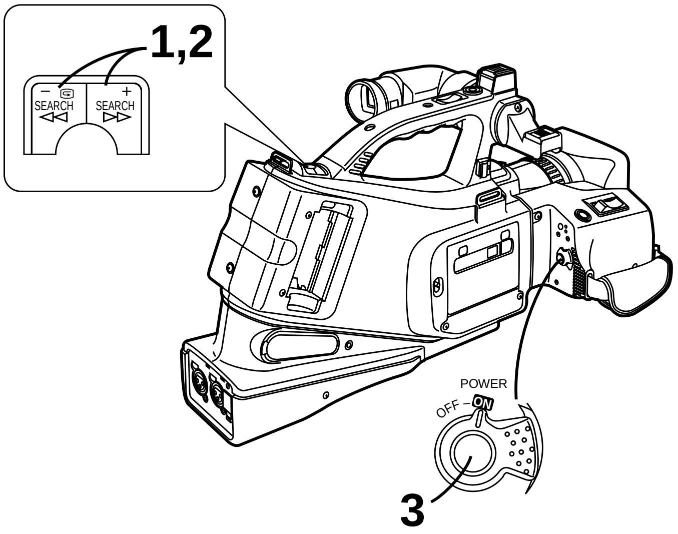
Aufsetzen des Objektivdeckels ❶
Nach dem Gebrauch immer den Objektivdeckel auf das Objektiv aufsetzen, um die Objektivlinse zu schützen.

ENGLISH

After Use

1. **Take out the cassette. (➜ 26)**
2. **Set the [POWER] Switch to [OFF].**
3. **Retract the Finder and close the LCD Monitor.**
4. **Take out the Battery. (➜ 22)**

Attaching the Lens Cap ❶
After use, attach the supplied Lens Cap to the Lens to protect it.



DEUTSCH

Betrachten der aufgenommenen Szenen während der Aufnahmepause (Kamerasuchlauf)

Wenn der Camerarecorder im Aufnahmepause-Modus ist, können Sie die aufgenommen Szenen wiedergeben. Die Kamerasuchlauf-Funktion ist praktisch zum Auffinden einer Szene, ab welcher Sie eine neue Szene mit sauberem Szenenübergang aufnehmen möchten.

1 Die Rückwärts-Suchlauf-Taste [◀◀] oder die Vorwärts-Suchlauf-Taste [▶▶] länger als 1 Sekunde gedrückt halten.

Durch Drücken der Taste [◀◀] wird das Bild in Rückwärtsrichtung wiedergegeben.
Durch Drücken der Taste [▶▶] wird das Bild in Vorwärtsrichtung wiedergegeben.

Aufnehmen ab der gewünschten Stelle

2 Die gedrückt gehaltene Taste loslassen.

Der Camerarecorder ist im Aufnahmepause-Modus.

3 Die Start-/Stopp-Taste drücken, um mit dem Aufnehmen zu beginnen.

Der Camerarecorder beginnt mit dem Aufnehmen der neuen Szene und fügt diese mit sauberem Szenenübergang an.

- Im Kamerasuchlauf-Modus enthält das Bild u. U. mosaikartige Muster. Dies ist jedoch eine systembedingte Eigenart von Digital-Video und völlig normal.

♦ Falls der Aufnahmegeschwindigkeits-Modus (SP/LP) der alten und neuen Szene nicht gleich ist, können bei der Wiedergabe Bildstörungen auftreten.

ENGLISH

Viewing Recorded Scenes During Recording Pause

(Camera Search)

You can view recorded scenes when the Camera Recorder is in the Recording Pause Mode.
The Camera Search Function is convenient to search for a scene from which you want to start recording a new scene with smooth scene-to-scene transition.

1 Keep the Reverse Search Button [◀◀] or the Forward Search Button [▶▶] pressed for more than 1 second.

Pressing the [◀◀] Button plays back the picture in reverse direction.
Pressing the [▶▶] Button plays back the picture in forward direction.

Starting to Record from the Desired Position

2 Release the pressed Search Button.

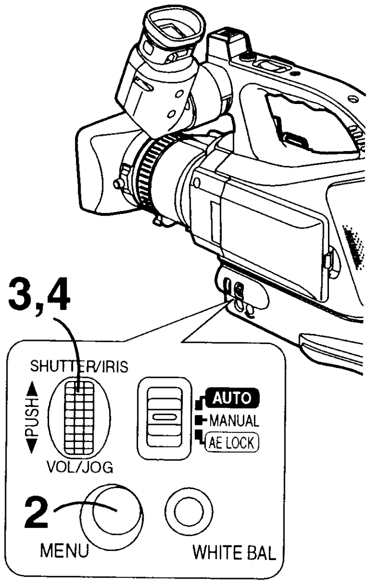
The Camera Recorder is in the Recording Pause Mode.

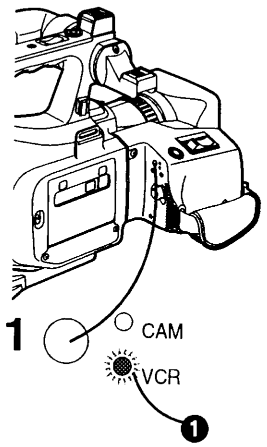
3 Press the Start/Stop Button to start recording.

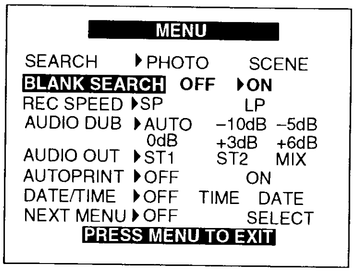
The Camera Recorder starts recording a new scene with smooth scene-to-scene transition.

- In the Camera Search Mode, the picture may contain mosaic-like patterns. However, this is a phenomenon particular to digital video and completely normal.

♦ If the Recording Speed Mode (SP/LP) of the previous and the new recording are different, the playback picture may be distorted.







```
                MENU
SEARCH       ▶PHOTO      SCENE
BLANK SEARCH  OFF   ▶ON
REC SPEED ▶SP            LP
AUDIO DUB ▶AUTO    −10dB −5dB
             0dB    +3dB  +6dB
AUDIO OUT  ▶ST1     ST2   MIX
AUTOPRINT ▶OFF           ON
DATE/TIME  ▶OFF   TIME  DATE
NEXT MENU ▶OFF        SELECT
       PRESS MENU TO EXIT
```

DEUTSCH

Auffinden des Endes des aufgezeichneten Bandabschnittes auf der Cassette (Leerstellen-Suchlauf)

Mit der Leerstellen-Suchlauf-Funktion können Sie das Ende des aufgezeichneten Bandabschnittes auf einer Cassette (oder einen aufnahmefreien Bandabschnitt zwischen Aufnahmen) schnell und bequem auffinden.

1 **Die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] ❶ aufleuchtet.**

2 **Die Taste [MENU] drücken.**
Das Menü erscheint.

3 **Den Regler [PUSH] drehen, um [BLANK SEARCH] zu wählen.**

4 **Den Regler [PUSH] drücken, um [ON] zu wählen.**
Ca. 1 Sekunde vor dem Ende der letzten aufgezeichneten Szene schaltet der Camerarecorder auf Standbild-Wiedergabe um.

- Falls sich auf der ganzen Cassette kein aufnahmefreier Bandabschnitt befindet, schaltet der Camerarecorder am Bandende auf Stopp um.
- Nach beendetem Leerstellen-Suchlauf können Sie die Taste [VCR/CAMERA] drücken, so daß die Lampe [CAMERA] aufleuchtet, und dann mit dem Aufnehmen beginnen. Die neue Szene wird mit sauberem Szenenübergang an das Ende der vorhergehenden Szene angefügt.

ENGLISH

Searching for the End of the Recorded Part on a Cassette
(Blank Search)

With the Blank Search Function, you can quickly locate the end of the recorded part on a cassette (or a blank part between recordings).

1 **Press the [VCR/CAMERA] Button so that the [VCR] Lamp lights. ❶**

2 **Press the [MENU] Button.**
The Menu appears.

3 **Turn the [PUSH] Dial to select [BLANK SEARCH].**

4 **Press the [PUSH] Dial to select [ON].**
Approximately 1 second before the end of the last recorded scene, the Camera Recorder switches over to the Still Playback Mode.

- If there is no blank part on a cassette, the Camera Recorder stops at the end of the tape.
- When the Blank Search has finished, you can press the [VCR/CAMERA] Button so that the [CAMERA] Lamp lights, and then start recording. The new scene is recorded with a smooth transition from the last to the new scene.

DEUTSCH

Auffinden des Anfangs aufgezeichneter Szenen, die mit Index-Signal markiert sind.

(Index-Suchlauf)

Index-Suchlauf

Um das Auffinden gewünschter Szenen zu vereinfachen, zeichnet dieser Camerarecorder beim Aufnehmen automatisch Index-Signale wie folgt auf:

❶ Photoshot-Index-Signal
Zum schnellen Auffinden des Anfangs von Standbildern, die im Photoshot-Modus (➜ 44) aufgezeichnet wurden.
Bei jedem Aufzeichnen eines Standbildes im Photoshot-Modus wird automatisch ein Photoshot-Index-Signal aufgezeichnet.

❷ Szenen-Index-Signal
Zum schnellen Auffinden des Anfangs von aufgezeichneten Szenen.
In den folgenden Fällen wird automatisch ein Index-Signal aufgezeichnet:

- Beim Aufnahmebeginn nach Einsetzen einer Cassette.
- Je nach der gewählten Einstellung für [SCENEINDEX] im Menü (➜ 122-126):
  [2HOUR]: Bei erneutem Aufnahmestart nach mehr als 2 Stunden wird ein Indexsignal aufgezeichnet.
  [DAY]: Bei erneutem Aufnahmestart nach Datumwechsel wird ein Indexsignal aufgezeichnet.

(Während des Aufnehmens eines Index-Signals blinkt die Anzeige [INDEX] für einige Sekunden.)

ENGLISH

Searching for the Beginning of Recorded Scenes Marked with Index Signal

(Index Search)

Index Search

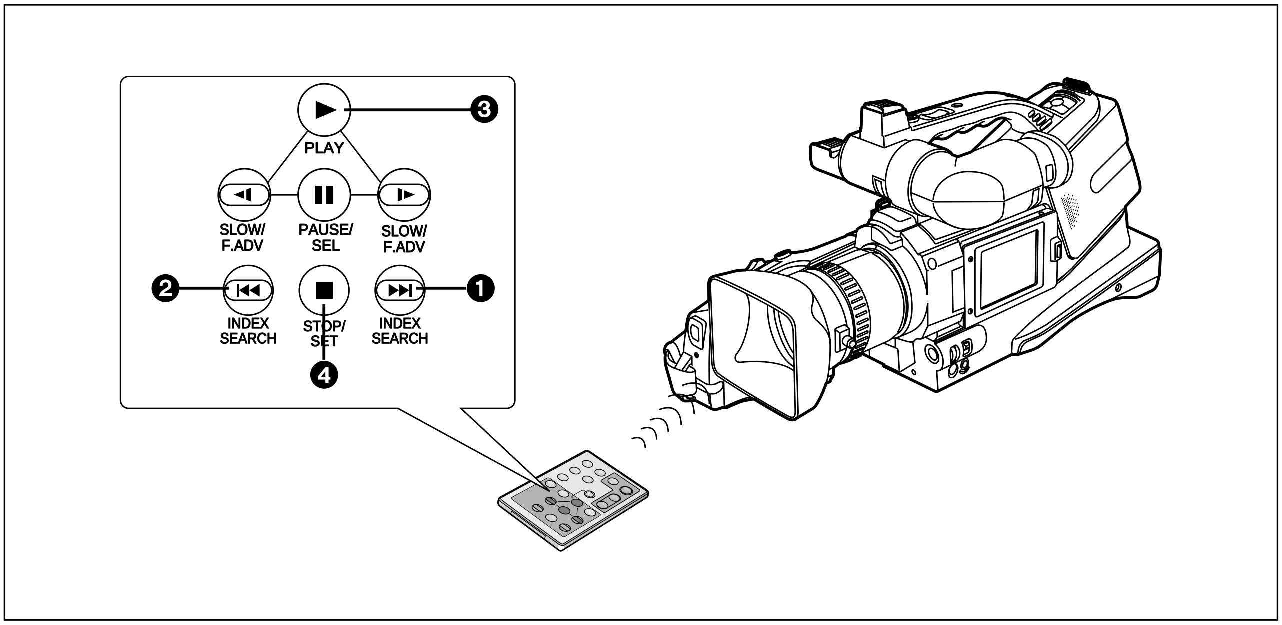
To allow easy searching for desired scenes, this Camera Recorder automatically records index signals during recording as follows:

❶ Photoshot Index Signal
To search for still pictures recorded in the Photoshot Mode (➜ 44).
A photoshot index signal is automatically recorded every time you record a still picture in the Photoshot Mode.

❷ Scene Index Signal
To search for the beginning of recorded scenes.
A scene index signal is automatically recorded in the following cases:

- When you start recording after inserting a cassette.
- Depending on the setting of [SCENEINDEX] on the Menu (➜ 122-126):
  [2HOUR]: An index signal is recorded when recording is restarted after a lapse of more than 2 hours.
  [DAY]: An index signal is recorded when recording is restarted after the date has changed since the last recording.

(While an index signal is being recorded, the [INDEX] Indication flashes for a few seconds.)



DEUTSCH

Auffinden von Photoshot-Standbildern

(Photoshot-Index-Suchlauf)

- Am Camerarecorder die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] aufleuchtet.
- [SEARCH] im Menü auf [PHOTO] einstellen. (➜ 122, 128)
  (Die Einstellung ab Fabrik ist [PHOTO].)

Photoshot-Index-Suchlauf vorwärts

Die Index-Taste [▶▶I] ❶ auf der Fernbedienung drücken.

Photoshot-Index-Suchlauf rückwärts

Die Index-Taste [I◀◀] ❷ auf der Fernbedienung drücken.

- Bei jedem Druck auf die entsprechende Taste wird das Band bis zum nächsten Standbild, das im Photoshot-Modus aufgezeichnet wurde, vor- bzw. zurückgespult. Nach Erreichen des nächsten Standbildes wird dieses fortdauernd und der Ton ca. 4 Sekunden lang wiedergegeben. (Wenn Sie den Camerarecorder länger als 6 Minuten im Standbild-Wiedergabe-Modus lassen, schaltet er auf Stopp um, um die Videoköpfe gegen übermäßige Abnutzung zu schützen.)

♦ Bei nahe am Bandanfang aufgezeichneten Standbildern funktioniert der Photoshot-Index-Suchlauf u. U. nicht richtig.

- Wenn Sie die Taste [I◀◀] oder [▶▶I] länger als 2 Sekunden gedrückt halten, wird die Funktion Intro-Suchlauf ausgelöst. Mit dieser Funktion werden alle im Photoshot-Modus aufgezeichneten Standbilder nacheinander ein paar Sekunden lang wiedergegeben. (Um die Intro-Suchlauf-Funktion zu beenden, die Wiedergabe-Taste [▶] ❸ oder die Stopp-Taste [■] ❹ drücken.)

ENGLISH

Searching for Photoshot Pictures

(Photoshot Index Search)

- Press the [VCR/CAMERA] Button on the Camera Recorder so that the [VCR] Lamp lights.
- Set [SEARCH] on the Menu to [PHOTO]. (➜ 122, 128)
  (The initial setting is [PHOTO].)

Photoshot Index Search in Forward Direction

Press the Index Button [▶▶I] ❶ on the Remote Controller.

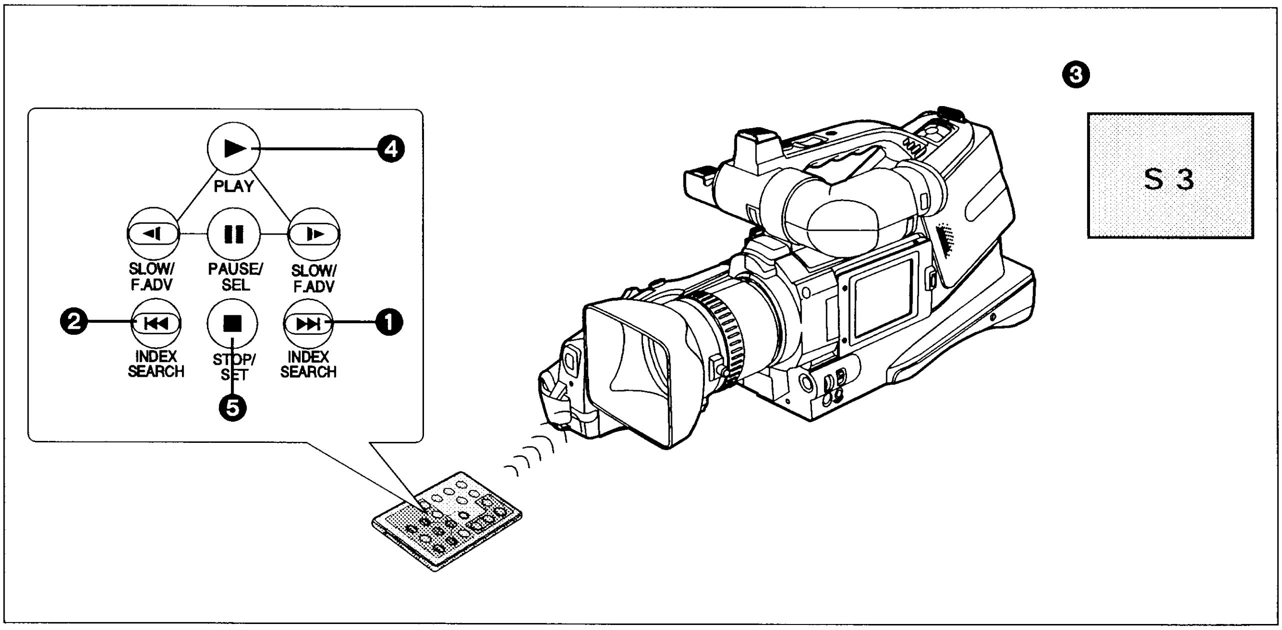
Photoshot Index Search in Reverse Direction

Press the Index Button [I◀◀] ❷ on the Remote Controller.

- At every press of the corresponding button, the tape is fast-forwarded or rewound to the next still picture recorded in the Photoshot Mode.
  After reaching the next still picture, the still picture is played back continually, however the sound only for approximately 4 seconds. (If you leave the Camera Recorder in the Still Playback Mode for more than 6 minutes, it switches over to the Stop Mode to protect the video heads against excessive wear).

♦ The Photoshot Index Search may not work correctly for still pictures recorded near the beginning of the tape.

- If you keep the [I◀◀] or [▶▶I] Button pressed for more than 2 seconds, the Intro Search Function is activated and it plays back all still pictures recorded in the Photoshot Mode on the cassette one after another for a few seconds each.
  (To cancel the Intro Search Function, press the Play Button [▶] ❸ or the Stop Button [■] ❹.)



DEUTSCH

Auffinden des Anfangs aufgezeichneter Szenen

(Szenen-Index-Suchlauf)

- Am Camerarecorder die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] aufleuchtet.
- [SEARCH] im Menü auf [SCENE] einstellen. (→ 122, 128)

Szenen-Index-Suchlauf in Vorwärtsrichtung
Die Index-Taste [►►I] ❶ auf der Fernbedienung drücken.

Szenen-Index-Suchlauf in Rückwärtsrichtung
Die Index-Taste [I◄◄] ❷ auf der Fernbedienung drücken.

- Bei kurzem Druck auf die entsprechende Taste erscheint die Anzeige [S1], und der Suchlauf nach der nächsten mit einem Index-Signal markierten Szene beginnt. Bei wiederholtem Drücken der Taste nachdem der Szenen-Index-Suchlauf ausgelöst worden ist, wechselt die Anzeige dementsprechend von [S2] bis auf [S9], und die der angezeigten Zahl entsprechende Szene wird angelaufen. ❸
  Nach Auffinden der gewünschten Szene beginnt die Wiedergabe automatisch. Der Index-Suchlauf läßt sich für maximal 9 mit einem Index-Signal markierte Szenen (von der gegenwärtigen aus) vorwählen.

♦ Wenn der Abstand zwischen zwei Szenen-Index-Signalen auf dem Band weniger als 1 Minute beträgt, funktioniert der Szenen-Index-Suchlauf u. U. nicht richtig.

♦ Bei nahe am Bandanfang aufgezeichneten Standbildern funktioniert der Szenen-Index-Suchlauf u. U. nicht richtig.

- Wenn Sie die Taste [I◄◄] oder [►►I] länger als 2 Sekunden gedrückt halten, wird die Funktion Intro-Suchlauf ausgelöst. In dieser Funktion werden die ersten paar Sekunden aller mit einem Index-Signal markierten Szenen nacheinander wiedergegeben.
  (Um die Intro-Suchlauf-Funktion zu beenden, die Wiedergabe-Taste [►] ❹ oder die Stopp-Taste [■] ❺ drücken.)

ENGLISH

Searching for the Beginning of Recorded Scenes (Scene Index Search)

- Press the [VCR/CAMERA] Button on the Camera Recorder so that the [VCR] Lamp lights.
- Set [SEARCH] on the Menu to [SCENE]. (→ 122, 128)

Scene Index Search in Forward Direction
Press the Index Button [►►I] ❶ on the Remote Controller.

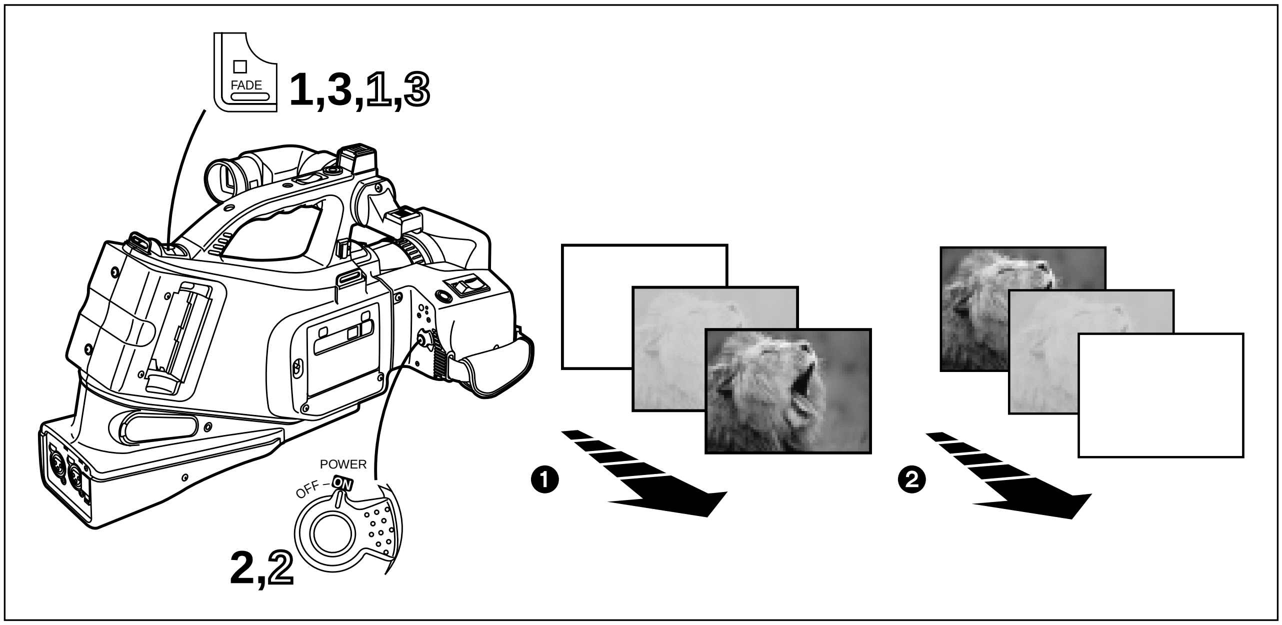
Scene Index Search in Reverse Direction
Press the Index Button [I◄◄] ❷ on the Remote Controller.

- When you briefly press the corresponding button once, the [S1] Indication appears and the search for the next scene marked with an index signal starts. After the Scene Index Search has started, every time you press the button, the indication changes successively from [S2] to [S9], and the beginning of the scene corresponding to the selected number is located. ❸
  After reaching the desired scene, playback starts automatically. (At a time, Scene Index Search in forward or reverse direction is possible up to the ninth scene marked with index signal from the present tape position.)

♦ If the interval between two scene index signals is less than 1 minute, the Scene Index Search may not work correctly.

♦ The Scene Index Search may not work correctly for scenes recorded near the beginning of the tape.

- If you keep the [I◄◄] or [►►I] Button pressed for more than 2 seconds, the Intro Search Function is activated and it plays back the beginning of all scenes marked with an index signal on the cassette one after another for a few seconds each.
  (To cancel the Intro Search Function, press the Play Button [►] ❹ or the Stop Button [■] ❺.)



DEUTSCH

Ein- und Ausblenden

Einblenden ❶

Mit der Einblendfunktion können Sie das Bild zusammen mit dem Ton am Anfang einer Szene langsam von Schwarz einblenden.

1 Im Aufnahmepause-Modus die Ein-/Ausblend-Taste [■] gedrückt halten.
Das Bild verschwindet langsam.

2 Wenn das Bild vollständig verschwunden ist, die Start-/Stopp-Taste drücken, um mit dem Aufnehmen zu beginnen.

3 Ca. 3 Sekunden nach Aufnahmebeginn die Ein-/Ausblend-Taste [■] loslassen.
Das Bild erscheint langsam wieder.

Ausblenden ❷

Mit der Ausblendfunktion können Sie das Bild zusammen mit dem Ton am Ende einer Szene langsam auf Schwarz ausblenden.

1 Während des Aufnehmens die Ein-/Ausblend-Taste [■] an der gewünschten Stelle drücken und gedrückt halten.
Das Bild verschwindet langsam.

2 Nachdem das Bild vollständig verschwunden ist, die Start-/Stopp-Taste dücken, um das Aufnehmen zu beenden.
Der Camerarecorder ist im Aufnahmepause-Modus.

3 Die Ein-/Ausblend-Taste [■] loslassen.

ENGLISH

Fading In/Out

Fading In ❶

Fading-in lets you make the picture and sound appear gradually from a black screen at the beginning of a scene.

1 With the Camera Recorder in the Recording Pause Mode, keep the Fade Button [■] pressed.
The picture gradually disappears.

2 When the picture has completely disappeared, press the Start/Stop Button to start recording.

3 Approximately 3 seconds after the recording has started, release the Fade Button [■].
The picture gradually appears again.

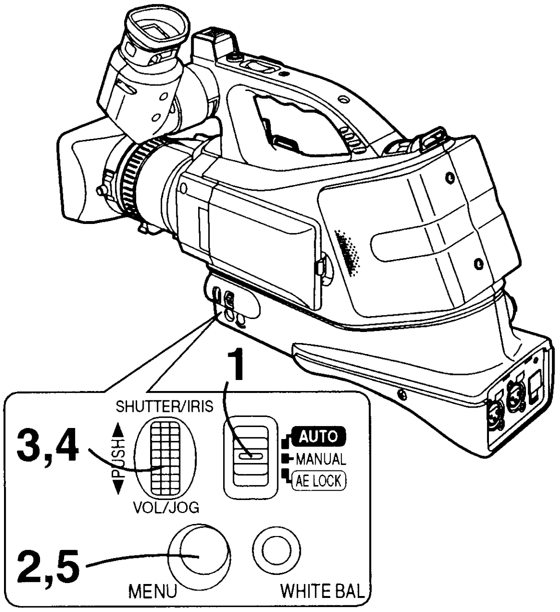
Fading Out ❷

Fading-out lets you make the picture and sound disappear gradually into a black screen at the end of a scene.

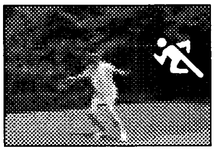
1 During recording, keep the Fade Button [■] pressed.
The picture gradually disappears.

2 After the picture has completely disappeared, press the Start/Stop Button to stop recording.
The Camera Recorder is in the Recording Pause Mode.

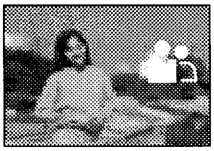
3 Release the Fade Button [■].



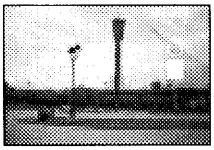
❶

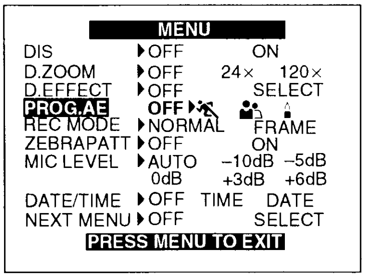


❷



❸





```
              MENU
DIS         ▸OFF       ON
D.ZOOM      ▸OFF   24×  120×
D.EFFECT    ▸OFF     SELECT
PROG.AE      OFF ▸🏃  👥  🕯
REC MODE    ▸NORMAL   FRAME
ZEBRAPATT   ▸OFF       ON
MIC LEVEL   ▸AUTO  −10dB −5dB
              0dB   +3dB +6dB
DATE/TIME   ▸OFF  TIME  DATE
NEXT MENU   ▸OFF     SELECT
        PRESS MENU TO EXIT
```

DEUTSCH

Aufnehmen in verschiedenen Situationen

(Belichtungsautomatik-Programme)

Dieser Camerarecorder bietet Ihnen verschiedene Belichtungsautomatik-Programme, die für spezielle Aufnahmesituationen optimiert sind.

1 Den Modus-Wahlschalter auf [MANUAL] einstellen.

Die Anzeige [MNL] erscheint.

2 Die Taste [MENU] drücken.

Das Menü erscheint.

3 Den Regler [PUSH] drehen, um [PROG.AE] zu wählen.

4 Den Regler [PUSH] drücken, um den gewünschten Modus ([🏃], [👥] oder [🕯]) zu wählen.

Wenn Sie die Verschlußzeit (→ 90) oder die Blende (→ 92) geregelt haben, ist es nicht möglich, einen Belichtungsautomatik-Programm-Modus zu wählen.

5 Die Taste [MENU] drücken, um das Menü auszublenden.

Die Anzeige des gewählten Belichtungsautomatik-Programm-Modus erscheint.

[🏃] Sport-Modus ❶
Zum Aufnehmen von Szenen mit viel schneller Bewegung, beispielsweise Sportszenen.

[👥] Porträt-Modus ❷
Zum Hervorheben eines scharf eingestellten Bildgegenstandes vor einem unscharfen Hintergrund.

[🕯] Schwachlicht-Modus ❸
Zum Aufhellen von dunklen Szenen.

Ausschalten der Belichtungsautomatik-Programm-Funktion
[PROG.AE] im Menü auf [OFF] stellen.

ENGLISH

Recording In Various Situations

(Programme AE)

This function lets you select Automatic Exposure settings optimized for special recording situations.

1 Set the Mode Selector Switch to [MANUAL].

The [MNL] Indication appears.

2 Press the [MENU] Button.

The Menu appears.

3 Turn the [PUSH] Dial to select [PROG.AE].

4 Press the [PUSH] Dial to select the desired mode ([🏃], [👥] or [🕯]).

If you have adjusted the shutter speed (→ 90) or the iris (→ 92), it is not possible to select a Programme AE Mode.

5 Press the [MENU] Button to exit the Menu.

The indication of the selected mode appears.

[🏃] Sports Mode ❶
To record scenes with fast-moving subjects such as sports scenes.

[👥] Portrait Mode ❷
To make subjects stand out sharply from the background.

[🕯] Low Light Mode ❸
To record dark scenes more brightly.

Cancelling the Programme AE Function
Set [PROG.AE] on the Menu to [OFF].

DEUTSCH

Aufnahmemodus Sport

- Bei der Wiedergabe von Szenen, die im Aufnahmemodus Sport aufgezeichnet wurden, können Sie Zeitlupen- und Standbild-Wiedergabe mit klaren Bildern und feinen Details genießen.
- Vermeiden Sie das Aufnehmen in diesem Modus unter Leuchtstofflampen, Quecksilberdampflampen oder Natrium lampen, denn die Farben und die Helligkeit des Wiedergabebildes sind u. U. nicht stabil.
- Beim Aufnehmen von Motiven unter extrem starker Beleuchtung oder mit viel Lichtreflexion können im Wiedergabebild u. U. vertikale Lichtstrahlen auftreten.
- Wenn das Motiv nicht ausreichend beleuchtet ist, blinkt die Anzeige [⛷].
- Wenn dieser Modus für Innenaufnahmen benutzt wird, kann im Wiedergabebild Flimmern auftreten.
- Es ist nicht möglich, den Aufnahmemodus Sport [⛷] zusammen mit dem Aufhellungs-Modus [GAINUP] im Menü [MENU (D.EFFECT)] zu wählen.

Aufnahmemodus Porträt

- Wenn dieser Modus für Innenaufnahmen benutzt wird, kann im Wiedergabebild Flimmern auftreten.
- Es ist nicht möglich, den Aufnahmemodus Porträt [👥] zusammen mit dem Aufhellungs-Modus [GAINUP] im Menü [MENU (D.EFFECT)] zu wählen.

Aufnahmemodus Schwachlicht

- Bei extrem dunklen Szenen können diese u. U. nicht ausreichend aufgehellt werden.

- Wenn Sie die Verschlußzeit (➜ 90) oder die Blende (➜ 92) geregelt haben, ist es nicht möglich, einen Belichtungsautomatik-Programm-Modus ([⛷], [👥] oder [🕯]) zu wählen.

ENGLISH

Sports Mode

- When playing back scenes recorded in the Sports Mode, you can enjoy slow motion and still playback of very sharp images with fine details.
- Avoid recording under fluorescent, mercury-vapour or natrium lamps in this mode, as the colour and the brightness of the playback picture might fluctuate.
- When recording subjects lit by strong lights or with much light reflection, the playback picture may contain vertical streaks of light.
- When the scene is not sufficiently lit, the [⛷] Indication flashes.
- When using this mode for recording indoors, the playback picture may flicker.
- It is not possible to select the Sports Mode [⛷] together with the Gain-up Mode [GAINUP] on the [MENU (D.EFFECT)] Menu.

Portrait Mode

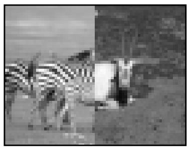
- When using this mode for recording indoors, the playback picture may flicker.
- It is not possible to select the Portrait Mode [👥] together with the Gain-up Mode [GAINUP] on the [MENU (D.EFFECT)] Menu.

Low Light Mode

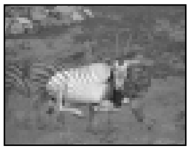
- It may not be possible to sufficiently brighten up extremely dark scenes.

- If you have adjusted the shutter speed (➜ 90) or the iris (➜ 92), it is not possible to select a Programme AE Mode ([⛷], [👥] or [🕯]).

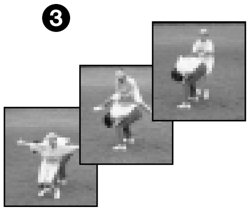
❶



❷



❸



❹

❺

DEUTSCH

Aufnehmen mit Spezial-Effekten

(Digital-Effekte)

Sie haben die Wahl zwischen 5 verschiedenen Modi, um Ihre Videofilme durch spezielle digitale Bildeffekte zu bereichern.

❶ **Wipe-Modus [WIPE]**
Mit dieser Funktion erzielen Sie saubere Szenenübergänge, wobei das neue Bild von rechts nach links eingeblendet wird, ähnlich dem Ziehen eines Vorhanges. Für nähere Einzelheiten, (➜ 82).

❷ **Mix-Modus [MIX]**
Mit dieser Funktion erzielen Sie ebenfalls saubere Szenenübergänge, wobei die letzte Szene langsam ausgeblendet und die neue Szene langsam darüber eingeblendet wird. Für nähere Einzelheiten, (➜ 84).

❸ **Stroboskop-Modus [STROBE]**
Die Bilder werden mit einem stroboskopartigen Effekt aufgenommen.

❹ **Aufhellungs-Modus [GAINUP]**
Das Bild wird elektronisch aufgehellt.
- ● In diesem Modus sollte die Scharfeinstellung manuell vorgenommen werden.
- ♦ Beim Aufnehmen im Aufhellungs-Modus kann ein Nachziehen des Bildes auftreten.

❺ **Schwarzweiß-Modus [B/W]**
Die Bilder werden in Schwarzweiß aufgezeichnet.

♦ Die Digital-Effekte können nicht benutzt werden, wenn die Digital-Bildstabilisator-Funktion oder die Digital-Zoom-Funktion eingeschaltet ist, oder wenn [REC MODE] im Menü auf [FRAME] eingestellt ist.
Wenn Sie einen Digital-Effekt benutzen möchten, sollten Sie sich vergewissern, daß [D.ZOOM] und [DIS] im Menü auf [OFF] eingestellt sind und [REC MODE] auf [NORMAL] eingestellt ist.

ENGLISH

Recording with Special Effects

(Digital Effects)

There are 5 different modes available for adding special digital picture effects.

❶ **Wipe Mode [WIPE]**
It gradually replaces a picture of the last recorded scene with the picture of the new scene, like drawing a curtain. For details, (➜ 82).

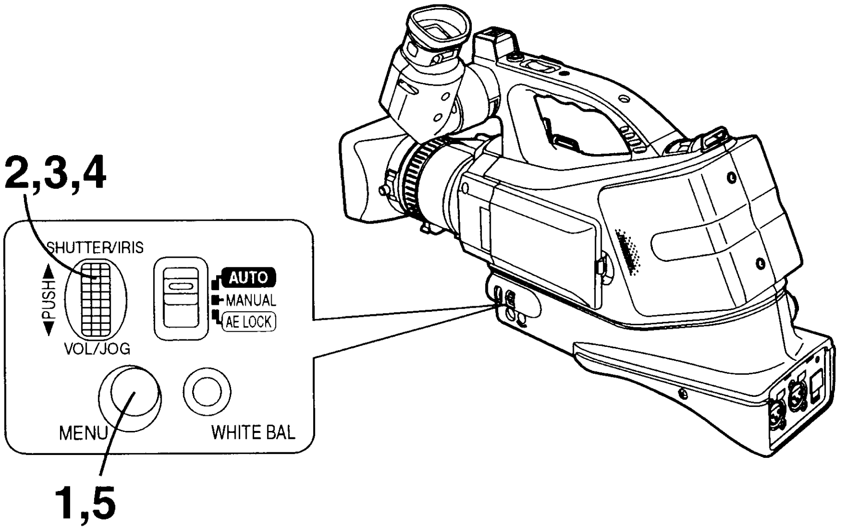
❷ **Mix Mode [MIX]**
It gradually fades out the picture of the last recorded scene while fading in the picture of the new scene. For details, (➜ 84).

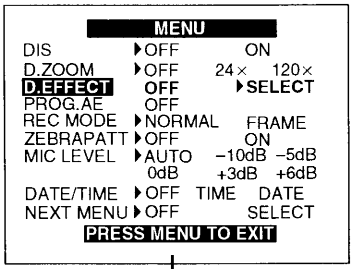
❸ **Strobe Mode [STROBE]**
It records the pictures with a stroboscope-like effect.

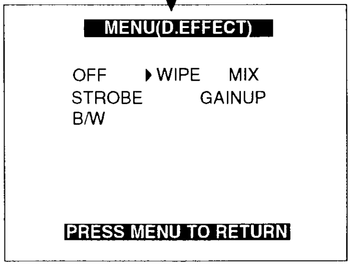
❹ **Gain-up Mode [GAINUP]**
It electronically brightens up the picture.
- ● In this mode, adjust the focus manually.
- ♦ Some after-image distortion may occur during recording with the Gain-up Function.

❺ **Monotone Mode [B/W]**
The picture is recorded in black and white.

♦ The Digital Effects cannot be used when the Digital Image Stabilizer Function or the Digital Zoom Function is activated, or when [REC MODE] on the Menu is set to [FRAME].
When you want to use a digital effect, make sure that [D.ZOOM] and [DIS] on the Menu are set to [OFF] and that [REC MODE] is set to [NORMAL].




```
MENU
DIS          ▶OFF       ON
D.ZOOM       ▶OFF    24×   120×
D.EFFECT      OFF       ▶SELECT
PROG.AE       OFF
REC MODE     ▶NORMAL    FRAME
ZEBRAPATT    ▶OFF        ON
MIC LEVEL    ▶AUTO    -10dB -5dB
               0dB     +3dB +6dB
DATE/TIME    ▶OFF   TIME   DATE
NEXT MENU    ▶OFF       SELECT
PRESS MENU TO EXIT
```


```
MENU(D.EFFECT)

OFF      ▶WIPE     MIX
STROBE           GAINUP
B/W

PRESS MENU TO RETURN
```

DEUTSCH

Aufnehmen mit Spezial-Effekten

(Digital-Effekte) (Fortsetzung)

Wählen des gewünschten Digital-Effektes

1 Die Taste [MENU] drücken.

Das Menü erscheint.

2 Den Regler [PUSH] drehen, um [D.EFFECT] zu wählen.

- ♦ Die Digital-Effekte können nicht benutzt werden, wenn die Digital-Bildstabilisator-Funktion oder die Digital-Zoom-Funktion eingeschaltet ist, oder wenn [REC MODE] im Menü auf [FRAME] eingestellt ist. Wenn Sie einen Digital-Effekt benutzen möchten, sollten Sie sich vergewissern, daß [D.ZOOM] und [DIS] im Menü auf [OFF] eingestellt sind und [REC MODE] auf [NORMAL] eingestellt ist.

3 Den Regler [PUSH] drücken, um [SELECT] zu wählen.

Das Menü [MENU (D.EFFECT)] erscheint.

4 Den Regler [PUSH] drücken, um den gewünschten Digital-Effekt zu wählen.

5 Die Taste [MENU] zweimal drücken, um das Menü auszublenden.

- ● Das Bild hat jetzt den gewählten Digital-Effekt. Der Effekt der Funktionen Wipe und Mix wird erst sichtbar, wenn im entsprechenden Modus aufgezeichnet wird. (➜ 82, 84)

- ♦ Wenn Sie [GAINUP] im Menü [MENU (D.EFFECT)] gewählt haben, ist es nicht möglich, den manuellen Weißabgleich-Modus zu wählen.
- ♦ Wenn Sie die Verschlußzeit (➜ 90) oder die Blende (➜ 92) geregelt haben, ist es nicht möglich, [GAINUP] im Menü [MENU (D.EFFECT)] zu wählen.
- ♦ Es ist nicht möglich, den Aufnahmemodus Sport [🏃] oder Porträt [👤] zusammen mit dem Aufhellungs-Modus [GAINUP] im Menü [MENU (D.EFFECT)] zu wählen.

Ausschalten des Digital-Effektes

[D.EFFECT] im Menü auf [OFF] einstellen.

ENGLISH

Recording with Special Effects

(Digital Effects) (Continued)

Selecting the Desired Digital Effect

1 Press the [MENU] Button.

The Menu appears.

2 Turn the [PUSH] Dial to select [D.EFFECT].

- ♦ The Digital Effects cannot be used when the Digital Image Stabilizer Function or the Digital Zoom Function is activated, or when [REC MODE] on the Menu is set to [FRAME].
When you want to use a digital effect, make sure that [D.ZOOM] and [DIS] on the Menu are set to [OFF] and that [REC MODE] is set to [NORMAL].

3 Press the [PUSH] Dial to select [SELECT].

The [MENU (D.EFFECT)] Menu appears.

4 Press the [PUSH] Dial to select the desired digital effect.

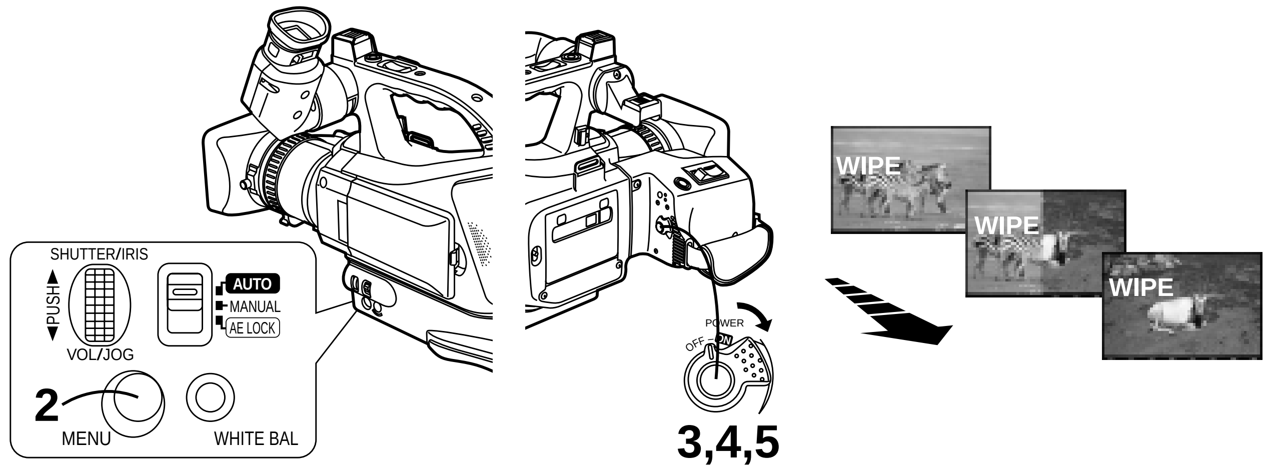
5 Press the [MENU] Button twice to exit the Menu.

- ● The picture has the selected digital effect now. However, the effect of the Wipe Function and the Mix Function only become visible when actually recording in the respective mode. (➜ 82, 84)

- ♦ If you have selected [GAINUP] on the [MENU (D.EFFECT)] Menu, it is not possible to select the Manual White Balance Mode.
- ♦ If you have adjusted the shutter speed (➜ 90) or the iris (➜ 92), it is not possible to select [GAINUP] on the [MENU (D.EFFECT)] Menu.
- ♦ It is not possible to select the Sports Mode [🏃] or the Portrait Mode [👤] together with the Gain-up Mode [GAINUP] on the [MENU (D.EFFECT)] Menu.

Cancelling the Digital Effect

Set [D.EFFECT] on the Menu to [OFF].



DEUTSCH

Aufnehmen mit Spezial-Effekten

(Digital-Effekte) (Fortsetzung)

■ Szenenübergänge mit Wischblende (Wipe)

Diese Funktion ersetzt ein Standbild der zuletzt aufgenommenen Szene langsam durch das laufende Bild der neuen Szene von rechts nach links, ähnlich dem Ziehen eines Vorhanges.

Nach Durchführen der Bedienschritte 1-3 auf Seite 80:

1. **[WIPE] im Menü [MENU (D.EFFECT)] wählen. (➜ 80)**
2. **Die Taste [MENU] zweimal drücken, um das Menü auszublenden.**
   Die Anzeige [WIPE] erscheint.
3. **Die Start-/Stopp-Taste drücken, um die Aufnahme zu starten.**
   Die normale Aufnahme beginnt.
4. **Die Start-/Stopp-Taste drücken, um eine Aufnahmepause einzulegen.**
   Das letzte Bild wird im Speicher festgehalten.
5. **Die Start-/Stopp-Taste drücken, um die Aufnahme erneut zu starten.**
   Das letzte Bild der vorhergehenden Szene wird jetzt langsam vom rechten Bildrand ausgehend durch die neue Szene ersetzt.

ENGLISH

Recording with Special Effects

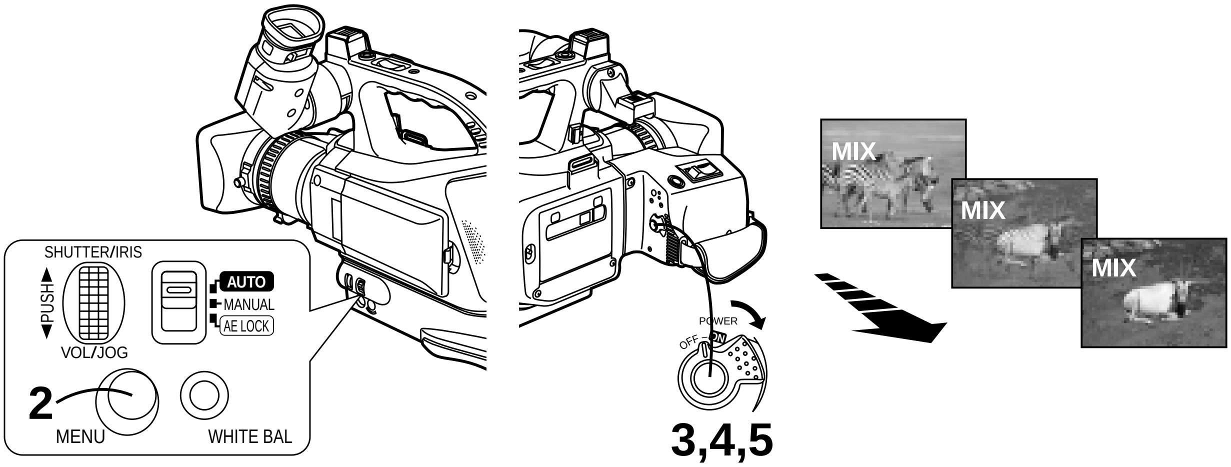
(Digital Effects) (Continued)

■ Wipe Mode

It gradually replaces a still picture of the last recorded scene with the moving picture of the new scene, like drawing a curtain.

After performing steps 1-3 on page 80:

1. **Select [WIPE] on the [MENU (D.EFFECT)] Menu. (➜ 80)**
2. **Press the [MENU] Button twice to exit the Menu.**
   The [WIPE] Indication appears.
3. **Press the Start/Stop Button to start recording.**
   The normal recording starts.
4. **Press the Start/Stop Button to pause recording.**
   The last picture is stored in memory.
5. **Press the Start/Stop Button to start recording again.**
   The last picture of the previous scene is gradually replaced by the new scene.



DEUTSCH

Aufnehmen mit Spezial-Effekten

(Digital-Effekte) (Fortsetzung)

■ Szenenübergänge mit Mischblende (Mix)

Diese Funktion blendet ein Standbild der zuletzt aufgenommenen Szene langsam aus und blendet gleichzeitig das laufende Bild der neuen Szene darüber ein.

Nach Durchführen der Bedienschritte 1-3 auf Seite 80:

1. **[MIX] im Menü [MENU (D.EFFECT)] wählen. (➜ 80)**
2. **Die Taste [MENU] zweimal drücken, um das Menü auszublenden.**
   Die Anzeige [MIX] erscheint.
3. **Die Start-/Stopp-Taste drücken, um die Aufnahme zu starten.**
   Die normale Aufnahme beginnt.
4. **Die Start-/Stopp-Taste drücken, um eine Aufnahmepause einzulegen.**
   Das letzte Bild wird im Speicher festgehalten.
5. **Die Start-/Stopp-Taste drücken, um die Aufnahme erneut zu starten.**
   Das letzte Bild der vorhergehenden Szene wird jetzt langsam ausgeblendet und gleichzeitig die neue Szene darüber eingeblendet.

ENGLISH

Recording with Special Effects

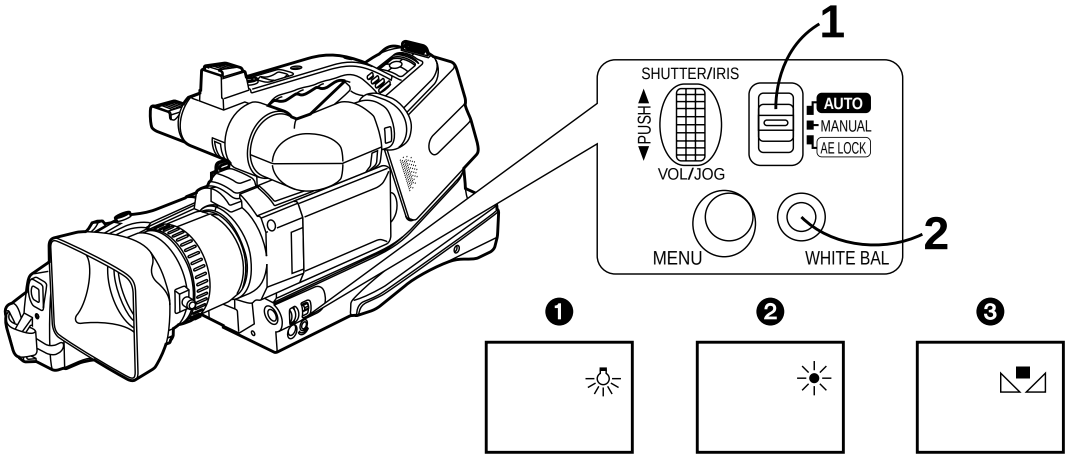
(Digital Effects) (Continued)

■ Mix Mode

It gradually fades out a still picture of the last recorded scene while fading in the moving picture of the new scene.

After performing steps 1-3 on page 80:

1. **Select [MIX] on the [MENU (D.EFFECT)] Menu. (➜ 80)**
2. **Press the [MENU] Button twice to exit the Menu.**
   The [MIX] Indication appears.
3. **Press the Start/Stop Button to start recording.**
   The normal recording starts.
4. **Press the Start/Stop Button to pause recording.**
   The last picture is stored in memory.
5. **Press the Start/Stop Button to start recording again.**
   The last picture gradually fades out while the new scene fades in.



DEUTSCH

Aufnehmen mit natürlichen Farben

(Weißabgleich)

Dieser Camerarecorder nimmt den Weißabgleich automatisch vor, damit die Bilder mit natürlichen Farben aufgezeichnet werden. Für gewisse Motive und Aufnahmesituationen (➜ 154, 156) kann die automatische Weißabgleich-Funktion jedoch nicht natürliche Farben gewährleisten. In diesen Fällen empfiehlt es sich, den Weißabgleich manuell vorzunehmen.

1 Den Modus-Wahlschalter auf [MANUAL] einstellen.

Die Anzeige [MNL] erscheint.

2 Die Taste [WHITE BAL] drücken.

Die Taste [WHITE BAL] wiederholt drücken, um den gewünschten Weißabgleich-Modus zu wählen.

Die Modi wechseln in folgender Reihenfolge:

❶ Innenaufnahme-Modus (Glühlampen) (☼)
❷ Außenaufnahme-Modus (☀)
❸ Verriegelungs-Modus (◺■◿)

♦ Wenn Sie [GAINUP] im Menü [MENU (D.EFFECT)] wählen, können Sie den Weißabgleich-Modus nicht wählen oder ändern.

Zurückschalten auf automatischen Weißabgleich

Den Modus-Wahlschalter auf [AUTO] einstellen.

ENGLISH

Recording with Natural Colours

(White Balance)

This Camera Recorder automatically adjusts the white balance to ensure that the pictures are recorded with natural colours. For certain types of subjects and lighting conditions, however, this Auto White Balance Adjustment Mode may not be able to ensure natural colours (➜ 154, 156). In these cases, adjust the white balance manually.

1 Set the Mode Selector Switch to [MANUAL].

The [MNL] Indication appears.

2 Press the [WHITE BAL] Button.

Repeatedly press the [WHITE BAL] Button to select the desired White Balance Mode.

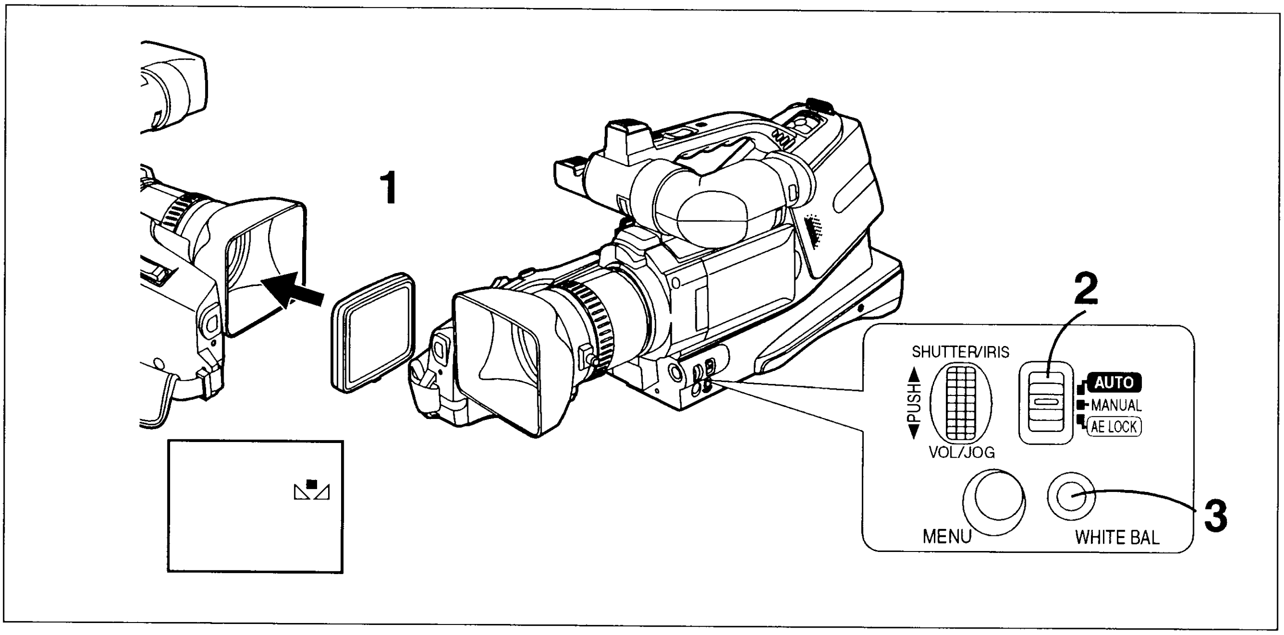
The modes change in the following order:

❶ Indoor (Incandescent Lamp) Mode (☼)
❷ Outdoor Mode (☀)
❸ Lock Mode (◺■◿)

♦ If you select [GAINUP] on the [MENU (D.EFFECT)] Menu, you cannot select or change the White Balance Mode.

Returning to the Auto White Balance Adjustment Mode

Set the Mode Selector Switch to [AUTO].



DEUTSCH

Manueller Weißabgleich

Benutzen Sie den manuellen Weißabgleich-Modus für alle Beleuchtungstypen außerhalb des Bereichs ❶ (➔ 156), da der automatische Weißabgleich-Modus nur für die Beleuchtungstypen innerhalb dieses Bereichs Bilder mit natürlichen Farben gewährleisten kann. Für optimale Farbwiedergabe unter fast allen Beleuchtungstypen empfiehlt es sich, den Weißabgleich für jede einzelne Szene manuell durchzuführen.

1 Den Objektivdeckel aufsetzen und heranzoomen, bis der ganze Bildschirm weiß wird.

2 Den Modus-Wahlschalter auf [MANUAL] einstellen.
Die Anzeige [MNL] erscheint.

3 Die Taste [WHITE BAL] gedrückt halten, bis die Anzeige [◺■◿] zu blinken aufhört und weiterhin leuchtet.
- Der Weißabgleich ist jetzt beendet. Falls Sie diese Einstellung später erneut verwenden möchten, beispielsweise nach Benutzen des automatischen Weißabgleichs, können Sie sie abrufen, indem Sie die Taste [WHITE BAL] dreimal drücken. (In diesem Fall blinkt die Anzeige [◺■◿].)
- ♦ Wenn die Anzeige [◺■◿] unter schwacher Beleuchtung dauernd blinkt, kann der Weißabgleich nicht manuell eingestellt werden.

Zurückschalten auf automatischen Weißabgleich

Den Modus-Wahlschalter auf [AUTO] einstellen.

ENGLISH

Adjusting the White Balance Manually

Use the Manual White Balance Adjustment Mode for all types of lighting outside the range ❶ (➔ 156), as the Auto White Balance Adjustment Mode can only ensure natural colours for the types of lighting within that range. For optimum results under almost any types of lighting, we recommend that you adjust the white balance manually for each new scene.

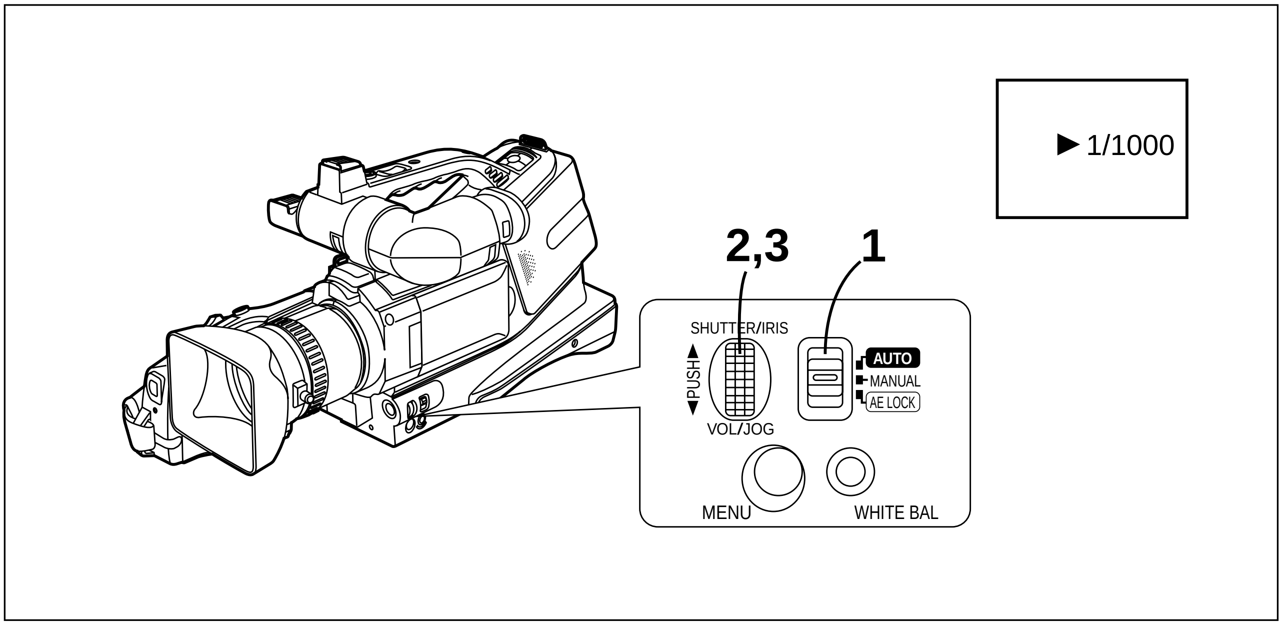
1 Attach the Lens Cap and zoom in until the entire screen becomes white.

2 Set the Mode Selector Switch to [MANUAL].
The [MNL] Indication appears.

3 Keep the [WHITE BAL] Button pressed until the [◺■◿] Indication stops flashing and remains lit.
- The Manual White Balance Adjustment is now finished. If you want to use this setting again later on, for example after having used Automatic White Balance Adjustment, you can recall it by pressing the [WHITE BAL] Button 3 times. (In this case, the [◺■◿] Indication flashes.)
- ♦ When the [◺■◿] Indication remains flashing under weak illumination, the Manual White Balance Adjustment cannot be set manually.

Returning to the Auto White Balance Adjustment Mode

Set the Mode Selector Switch to [AUTO].



DEUTSCH

Manuelles Einstellen der Verschlußzeit

Zum Erzielen spezieller kreativer Effekte, oder auch für spezielle Beleuchtungssituationen oder Motive mit viel schneller Bewegung, können Sie die Verschlußzeit manuell regeln.

1 Den Modus-Wahlschalter auf [MANUAL] einstellen.

Die Anzeige [MNL] erscheint.

2 Den Regler [PUSH] drücken.

Wenn Sie die Verschlußzeit geregelt haben, ist es nicht möglich, einen Belichtungsautomatik-Programm-Modus ([🏃], [👥] oder [🕯]) oder den Aufhellungs-Modus [GAINUP] im Menü [MENU (D.EFFECT)] zu wählen.

3 Den Regler [PUSH] drehen, um die Verschlußzeit zu regeln.

Einstellbereich für die Verschlußzeit

1/50–1/8000 s

Die normale Verschlußzeit ist 1/50 s.

Je näher bei [1/8000] die gewählte Einstellung ist, desto kürzer wird die Verschlußzeit.

Zurückschalten auf die normale Verschlußzeit

Den Modus-Wahlschalter auf [AUTO] einstellen.

ENGLISH

Adjusting the Shutter Speed Manually

To achieve special creative effects or to cope with special lighting situations or fast-action scenes, you can adjust the shutter manually.

1 Set the Mode Selector Switch to [MANUAL].

The [MNL] Indication appears.

2 Press the [PUSH] Dial.

If you have adjusted the shutter speed, it is not possible to select a Programme AE Mode ([🏃], [👥], or [🕯]) or the Gain-up Mode [GAINUP] on the [MENU (D.EFFECT)] Menu.

3 Turn the [PUSH] Dial to adjust the shutter speed.

Range of Shutter Speed Adjustment

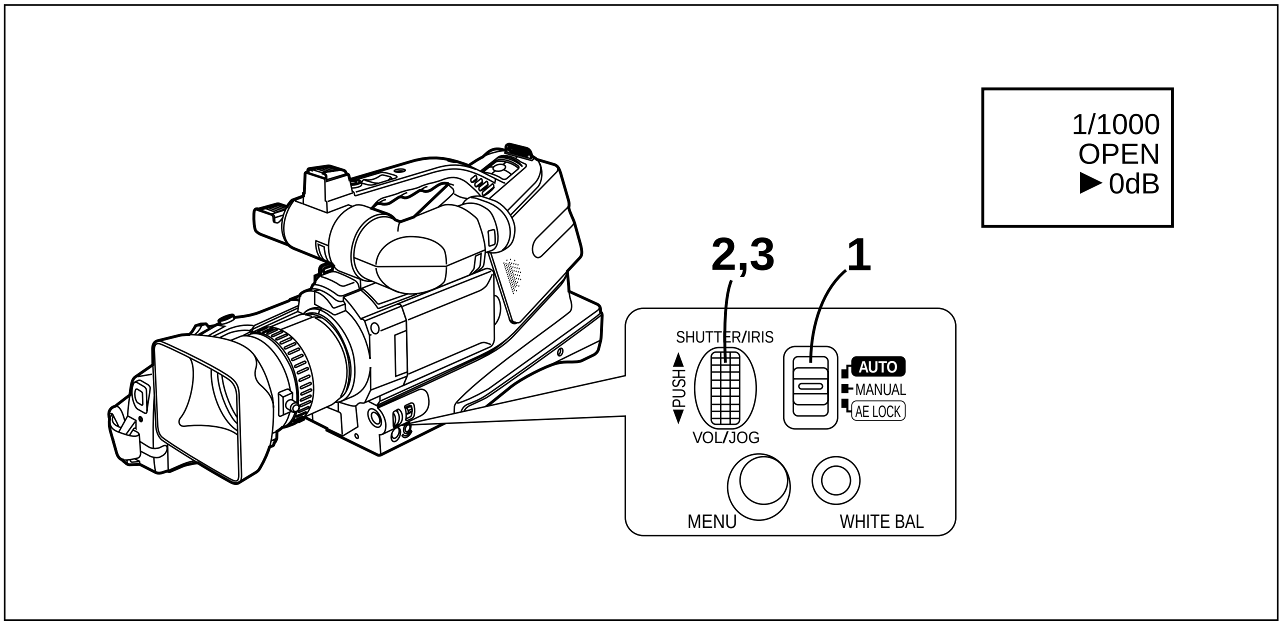
1/50 –1/8000 s

The standard shutter speed is 1/50 s.

The nearer to [1/8000] a setting you select, the faster the shutter speed becomes.

Returning to the Normal Shutter Speed

Set the Mode Selector Switch to [AUTO].



DEUTSCH

Manuelles Einstellen der Blende

Zum Erzielen spezieller kreativer Effekte, oder für spezielle Beleuchtungssituationen oder Motive mit viel schneller Bewegung, können Sie auch die Blende manuell regeln.

1 Den Modus-Wahlschalter auf [MANUAL] einstellen.

Die Anzeige [MNL] erscheint.

2 Den Regler [PUSH] zweimal drücken.

Die Anzeige [▶F] erscheint.

3 Den Regler [PUSH] drehen, um die Blende zu regeln.

Einstellbereich für die Blende

CLOSE (geschlossen) ➜ F16.0...F1.7 ➜ OPEN (voll geöffnet) +0dB...+18dB
Je näher bei [CLOSE] die gewählte Einstellung ist, desto dunkler wird das Bild.
Je näher bei [OPEN] die gewählte Einstellung ist, desto heller wird das Bild.
Die Zahlen mit +dB zeigen Aufhellungswerte an. Wenn Sie einen zu hohen Wert wählen, kann sich die Bildqualität verschlechtern.

Zurückschalten auf die normale Blende

Den Modus-Wahlschalter auf [AUTO] einstellen.

- ♦ Durch manuelles Einstellen der Verschlußzeit (➜ 90) nach manuellem Regeln der Blende wird die Blende auf automatische Einstellung zurückgestellt. Wenn Sie daher sowohl die Verschlußzeit als auch die Blende manuell einstellen möchten, müssen Sie unbedingt zuerst die Verschlußzeit und dann die Blende regeln.
- ♦ Wenn Sie die Blende geregelt haben, ist es nicht möglich, einen Belichtungsautomatik-Programm-Modus ([🏃], [👥] oder [🕯]) oder den Aufhellungs-Modus [GAINUP] im Menü [MENU (D.EFFECT)] zu wählen.

ENGLISH

Adjusting the Iris (F Number) Manually

To achieve special creative effects or to cope with special lighting situations or fast-action scenes, you can adjust the iris (F number) manually.

1 Set the Mode Selector Switch to [MANUAL].

The [MNL] Indication appears.

2 Press the [PUSH] Dial twice.

The [▶F] Indication appears.

3 Turn the [PUSH] Dial to adjust the iris.

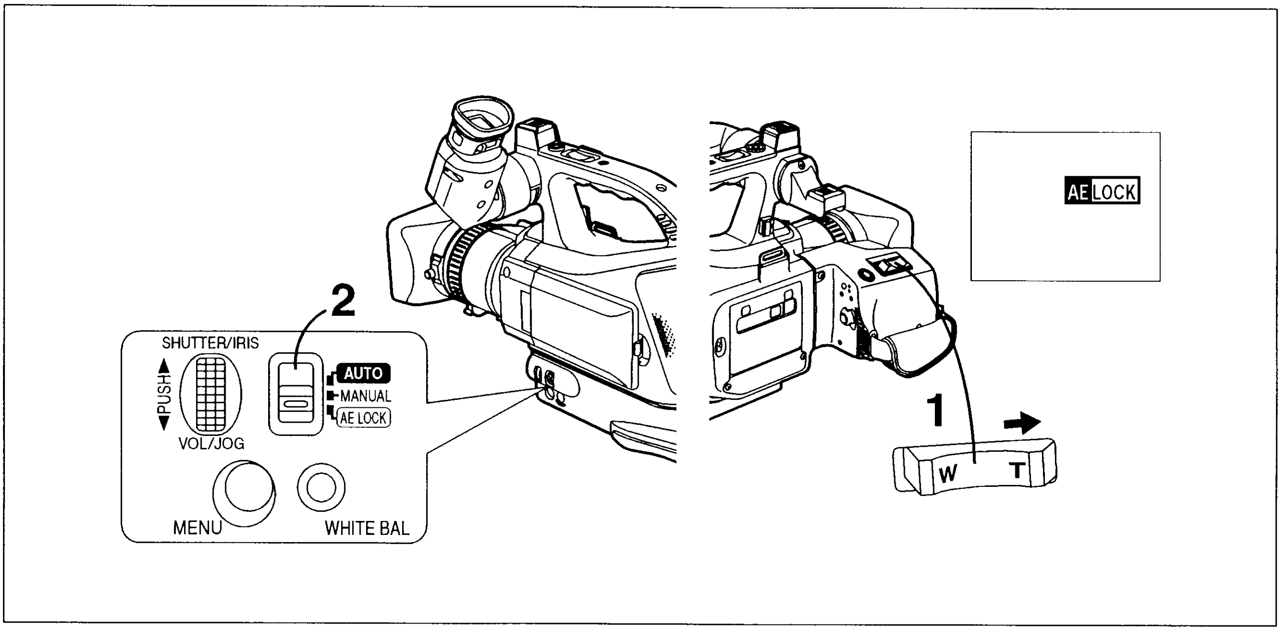
Range of Iris Adjustment

CLOSE (Closed) ➜ F16.0...F1.7 ➜ OPEN (Opened) +0dB...+18dB
The nearer to [CLOSE] a value you select, the darker the picture becomes.
The nearer to [OPEN] a value you select, the brighter the picture becomes.
The figures with +dB show the Gain-up value. If you increase the value too much, the picture quality deteriorates.

Returning to the Normal Iris Value (F Number)

Set the Mode Selector Switch to [AUTO].

- ♦ Manually adjusting the shutter speed (➜ 90) after performing manual iris adjustment changes the iris back to automatic adjustment.
  Therefore, if you want to adjust both the shutter speed and iris manually, be sure to adjust the shutter speed first.
- ♦ If you have adjusted the iris, it is not possible to select a Programme AE Mode ([🏃], [👥] or [🕯]) or the Gain-up Mode [GAINUP] on the [MENU (D.EFFECT)] Menu.



DEUTSCH

Aufnehmen mit gleichbleibender Helligkeit (AE Lock-Funktion)

Die AE Lock-Funktion ermöglicht es Ihnen, einen Bildgegenstand mit gleichbleibender Helligkeit aufzunehmen. Wenn Sie beispielsweise mit dem Camerarecorder einer Person folgen, die sich von einem hellen an einen dunklen Ort (oder umgekehrt) begibt, verhindert diese Funktion, daß das Gesicht heller oder dunkler wird.

1. **Den Zoomhebel [W/T] gegen [T] drücken, um den Bildgegenstand heranzuzoomen.**

2. **Den Modus-Wahlschalter auf [AE LOCK] einstellen.**
   Die Anzeige [AE LOCK] erscheint.
   Die Helligkeit des Bildes bleibt jetzt auf dem Wert eingestellt, den es beim Umschalten auf [AE LOCK] hatte.

Ausschalten der AE Lock-Funktion
Den Modus-Wahlschalter auf [AUTO] oder [MANUAL] einstellen.

Verriegeln der Helligkeit auf einem gewünschten Wert
Nach Durchführen des obigen Schrittes 1 zuerst den Modus-Wahlschalter auf [MANUAL] einstellen, dann die Helligkeit manuell regeln (→ 90, 92), und abschließend den Modus-Wahlschalter auf [AE LOCK] einstellen.

ENGLISH

Recording with Fixed Brightness (AE Lock)

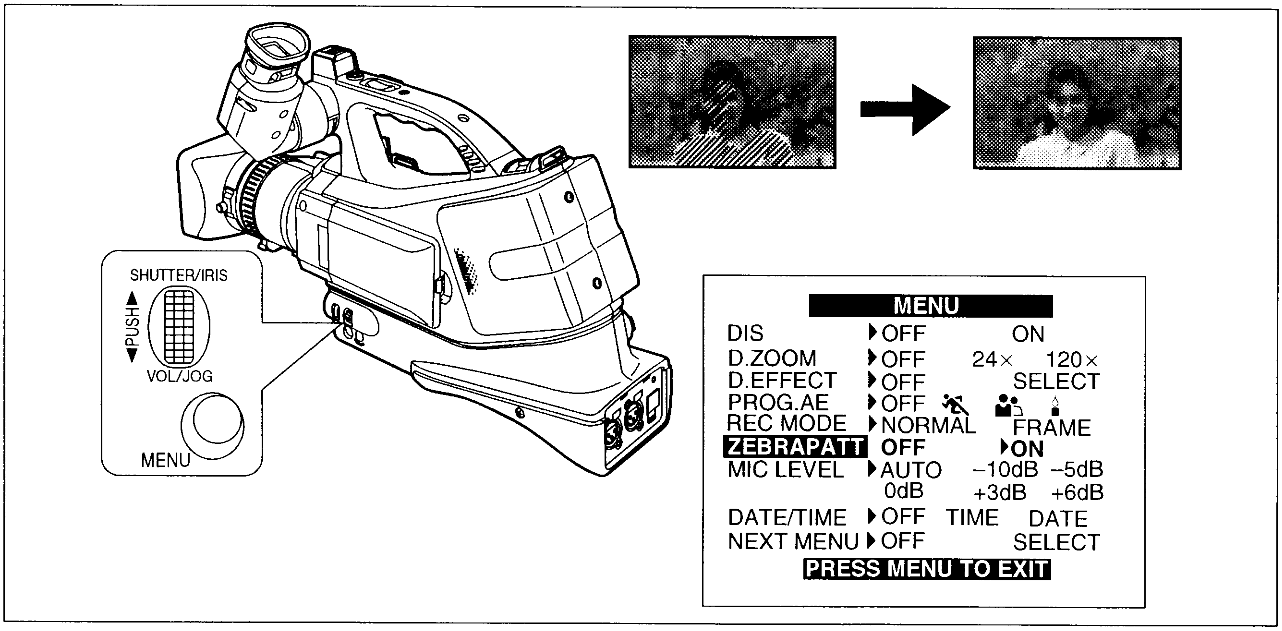
The AE Lock Function lets you record a subject with the same brightness even when the lighting conditions change greatly. For example, when you record a person who moves from a bright to a dark place, or vice versa, this function prevents the person's face from becoming brighter or darker.

1. **Push the [W/T] Zoom Lever toward [T] to zoom in on the subject.**

2. **Set the Mode Selector Switch to [AE LOCK].**
   The [AE LOCK] Indication appears.
   The brightness of the picture is now locked to the value it had at the moment of setting the switch to [AE LOCK].

Cancelling the AE Lock Function
Set the Mode Selector Switch to [AUTO] or [MANUAL].

Locking the Brightness at a Desired Level
After Step 1 above, set the Mode Selector Switch to [MANUAL] to adjust the brightness manually (→ 90, 92) and then set the Mode Selector Switch to [AE LOCK].



```
              MENU
DIS          ▸OFF          ON
D.ZOOM       ▸OFF     24×    120×
D.EFFECT     ▸OFF         SELECT
PROG.AE      ▸OFF
REC MODE     ▸NORMAL      FRAME
ZEBRAPATT     OFF        ▸ON
MIC LEVEL    ▸AUTO    −10dB  −5dB
              0dB     +3dB   +6dB
DATE/TIME    ▸OFF   TIME    DATE
NEXT MENU    ▸OFF         SELECT
       PRESS MENU TO EXIT
```

DEUTSCH

Weitere praktische Funktionen

Zebramuster

Mit Hilfe des Zebramusters läßt sich die Helligkeit des Bildes bequem auf einen optimalen Wert einstellen, und zwar bereits vor dem Aufnehmen. Wenn Sie [ZEBRAPATT] im Menü auf [ON] einstellen, erscheinen im Sucher diagonale weiße Streifen (Zebramuster) an überbelichteten Bildstellen (extrem hell beleuchtete und glänzende Bildgegenstände). Um das Aufnehmen von überbelichteten, ausgewaschenen Bildern zu verhindern, sollten Sie in einem solchen Falle die Verschlußzeit (➜ 90) und/oder die Blende/Aufhellung (➜ 92) manuell so regeln, daß das Zebramuster verschwindet. Beim Aufnehmen einer Person in einem weißen Hemd beispielsweise ist so einzustellen, daß das Zebramuster über dem Gesicht gerade verschwindet aber über dem Hemd deutlich sichtbar bleibt. Wenn es auch über dem Hemd verschwindet, wird das Bild zu dunkel.
Das Zebramuster wird selbstverständlich nicht im Bild mit aufgezeichnet.

- Zebramuster erscheint nicht auf dem LCD-Monitor.

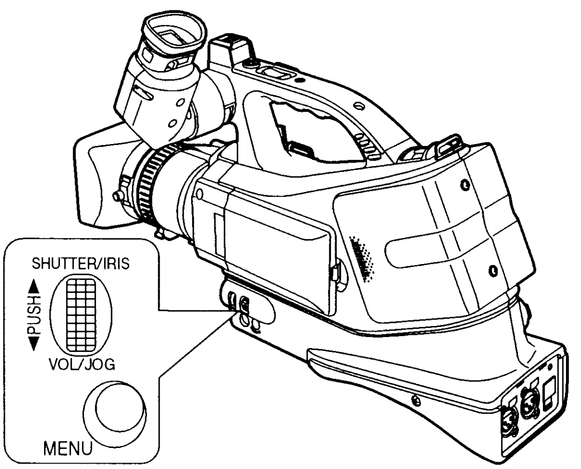
ENGLISH

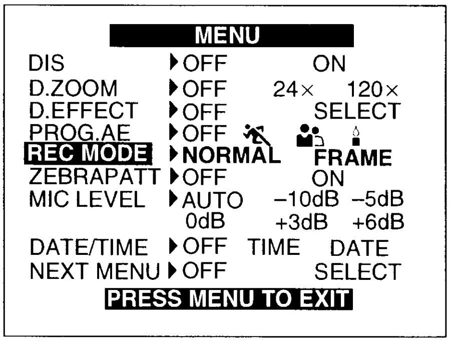
Other Convenient Functions

Zebra Pattern

Using the Zebra Pattern makes it easy to adjust the brightness of the picture to an optimum level, even before you start recording.
If you set [ZEBRAPATT] on the Menu to [ON], diagonal white bands (Zebra Pattern) appear or in the Finder on parts of the picture which are overexposed (extremely brightly lit and shiny subjects).
To prevent recording of overexposed, whitish pictures, manually adjust the shutter speed (➜ 90) and/or iris/gain (➜ 92) so that the Zebra Pattern disappears.
However, when recording a person wearing a white shirt, adjust so that the Zebra Pattern over the face just disappears but remains distinctly over the white shirt. If it disappears over the white shirt, the picture becomes too dark.
Of course, the Zebra Pattern is not recorded onto the tape.

- Zebra pattern does not appear on LCD monitor.




```
MENU
DIS          ▸OFF        ON
D.ZOOM       ▸OFF      24×  120×
D.EFFECT     ▸OFF        SELECT
PROG.AE      ▸OFF
REC MODE     ▸NORMAL     FRAME
ZEBRAPATT    ▸OFF        ON
MIC LEVEL    ▸AUTO    -10dB -5dB
               0dB    +3dB  +6dB
DATE/TIME    ▸OFF  TIME   DATE
NEXT MENU    ▸OFF        SELECT
PRESS MENU TO EXIT
```

DEUTSCH

Weitere praktische Funktionen

(Fortsetzung)

Aufnahme-Modus

Wenn Sie [REC MODE] im Menü zum Aufnehmen auf [FRAME] einstellen (➔ 122, 124), können Sie die so aufgenommenen Standbilder mit erhöhter Auflösung wiedergeben.

NORMAL:	Diesen Modus für normales Aufnehmen wählen.
FRAME:	Da die Bilder als Vollbilder aufgezeichnet werden, ist ihre vertikale Auflösung 50% höher als beim normalen Aufnahme-Modus (Halbbilder). Schnelle Bewegungen im Bild können dabei jedoch ruckartig wirken. Wählen Sie diese Einstellung zum Aufnehmen von Standbildern, die Sie ausdrucken oder in einen Computer eingeben möchten.

- ♦ Wenn Sie [REC MODE] im Menü auf [FRAME] einstellen, ist es nicht möglich, auch einen Digital-Effekt zu benutzen. (➔ 78)

ENGLISH

Other Convenient Functions

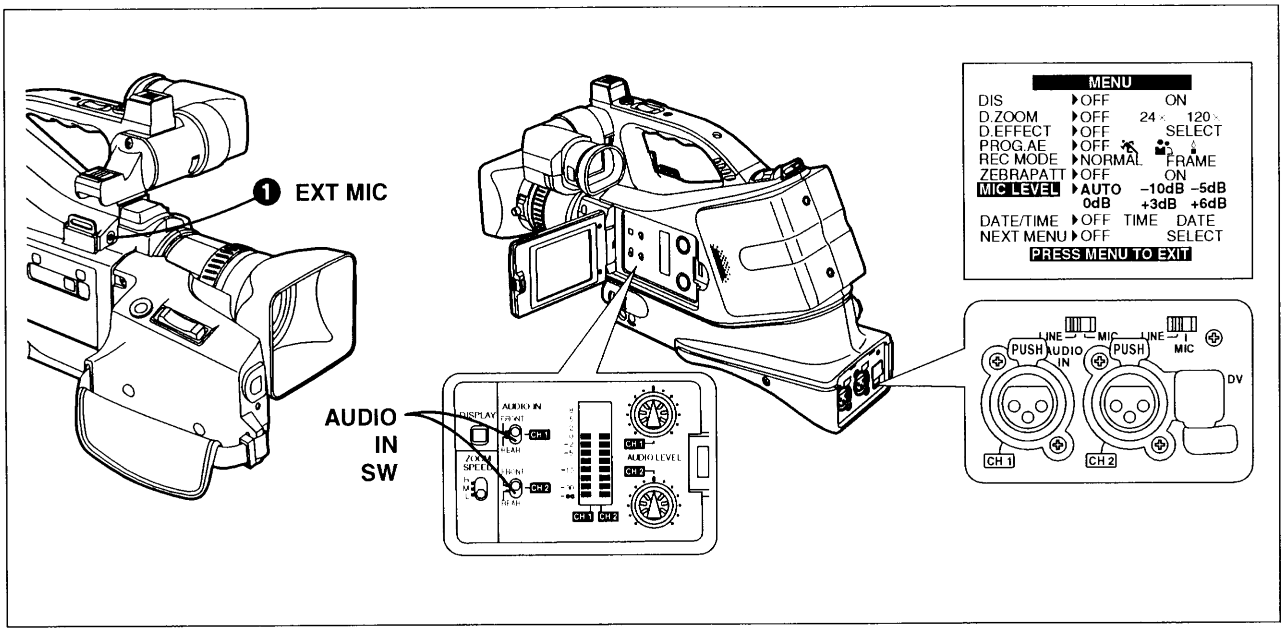
(Continued)

Recording Mode

If you set [REC MODE] on the Menu to [FRAME] for recording (➔ 122, 124), the still picture can be played back with increased clarity.

NORMAL:	Select this mode for normal recording.
FRAME:	As the pictures are recorded as frames, their vertical resolution is 50% higher than in normal recording. However, fast movements in the picture become somewhat jerky. Use this mode for recording still pictures that you want to print or import into computer applications.

- ♦ If you set [REC MODE] to [FRAME], it is not possible to use a digital effect. (➔ 78)


❶ EXT MIC
AUDIO IN SW
MENU
DIS ▸OFF ON
D.ZOOM ▸OFF 24× 120×
D.EFFECT ▸OFF SELECT
PROG.AE ▸OFF
REC MODE ▸NORMAL FRAME
ZEBRAPATT ▸OFF ON
MIC LEVEL ▸AUTO −10dB −5dB 0dB +3dB +6dB
DATE/TIME ▸OFF TIME DATE
NEXT MENU ▸OFF SELECT
PRESS MENU TO EXIT
LINE MIC
PUSH AUDIO IN
PUSH
MIC
DV
CH 1
CH 2
DISPLAY
AUDIO IN
FRONT
REAR
ZOOM SPEED
AUDIO LEVEL

DEUTSCH

■ Verwendung eines internen Mikrofons

1. Den AUDIO IN CH/CH2-Schalter auf FRONT stellen.

■ Verwendung eines externen Mikrofons

1. Das Mikrofonkabel an die Buchse EXT MIC anschließen. ❶
2. Den Schalter AUDIO IN CH1/CH2 auf FRONT stellen.
   - Interne Mikrofone werden automatisch auf externe Mikrofone umgeschaltet.
   - Den Ferritkern in der gleichen Verpackung ans Mikrofonkabel anbauen.

■ Verwendung eines an den hinteren Audioeingangsanschluß angeschlossenen externen Mikrofons

1. Den Schalter AUDIO MIC/LINE auf MIC stellen.
   - Bis zu zwei externe Mikrofone können an die Buchsen AUDIO IN CH1/CH2 angeschlossen werden.
2. Schalter AUDIO IN
   Die Schalter AUDIO IN der Kanäle, an welche Mikrofone angeschlossen sind, auf REAR stellen.

■ Anschluß eines Audio-Line-Eingangs

1. Wird eine Audio-LINE-Eingangs-Signalquelle verwendet, ist die Audiokomponente an die Buchsen AUDIO IN CH1/CH2 des Camerarecorders anzuschließen.
2. Schalter AUDIO IN
   Den Schalter AUDIO IN des Kanals, an den die Audiosignalquelle angeschlossen ist, auf REAR stellen.
3. Den Schalter AUDIO MIC/LINE auf LINE stellen.

■ Manuelle Einstellung des Audiopegels

1. Der Audiopegel kann durch Drehen der Regler AUDIO LEVEL CH1/CH2 so einstellen, daß der Pegelmesser bei maximaler Lautstärke höchstens +8 dB anzeigt.
   - [MIC LEVEL] aufs Kamera-Mode-Menü (➜ 124) oder [AUDIO DUB] aufs VCR-Mode Menü stellen (➜ 128) auf AUTO bei Regelung des Audiopegels.

ENGLISH

■ Using the Internal Microphone

1. Set the [AUDIO IN CH/CH2] switch to [FRONT] side.

■ Using the External Microphone

1. Connect the microphone connecting cable to the EXT MIC jack. ❶
2. Set the AUDIO IN CH1/CH2 switch to FRONT.
   - Internal microphones will be switched to external microphones automatically.
   - Attach the ferrite core in the same package to the microphone cable.

■ Using the External Microphone connected to rear audio input connector

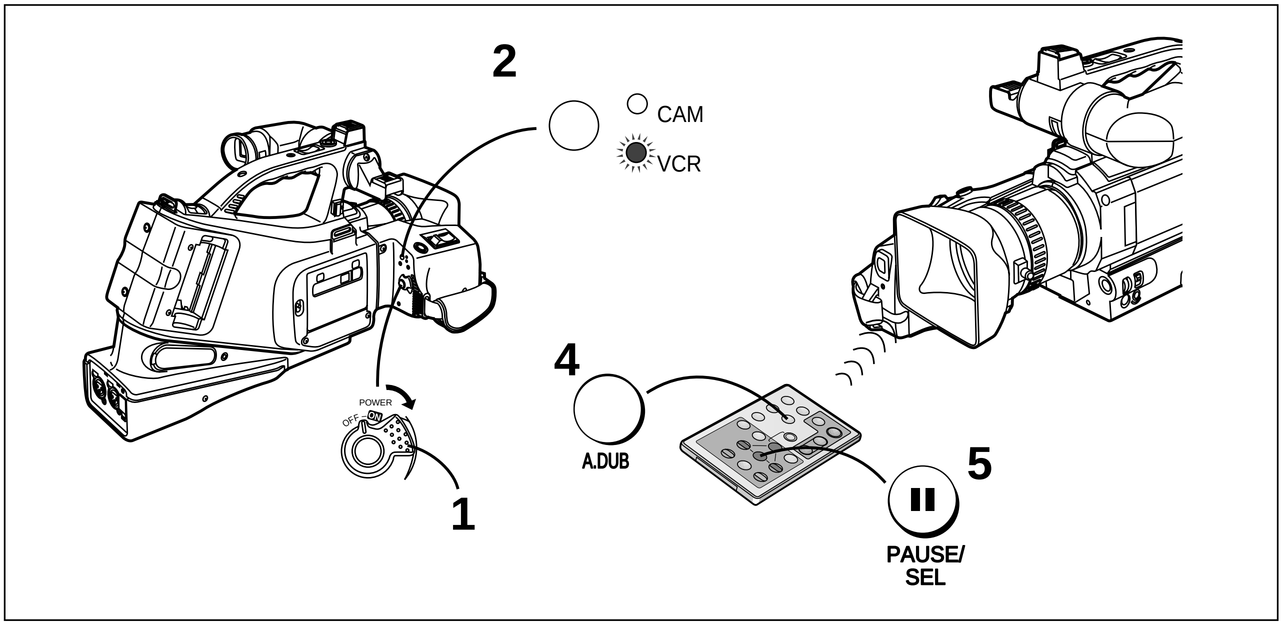
1. Set the AUDIO MIC/LINE switch to MIC.
   - Up to two external microphones can be connected to the AUDIO IN CH1/CH2 connectors.
2. AUDIO IN Switch
   Set the AUDIO IN switch of the channels to which microphones are connected to REAR.

■ Connecting an Audio Line Input

1. When using an audio line input signal source, connect the audio component to the unit's AUDIO IN CH1/CH2 connectors.
2. AUDIO IN Switch
   Set the AUDIO IN switch of the channels to which microphones are connected to REAR.
3. Set the AUDIO MIC/LINE switch to LINE.

■ Adjusting the audio level manually

1. The AUDIO LEVEL CH1/CH2 Controls can adjust the audio level so that the level metre appears up to +8 dB at the maximum volume.
   - Set the [MIC LEVEL] on the camera Mode Menu (➜ 124) or [AUDIO DUB] on the VCR Mode Menu (➜ 128) to AUTO when adjusting the audio level.



DEUTSCH

Hinzufügen von neuem Ton auf einer aufgezeichneten Cassette

(Nachvertonung)

Zum Durchführen der Nachvertonung ist die Fernbedienung notwendig.
Mit Nachvertonung können Sie den Ton der Originalaufnahme durch Musik, Kommentar und spezielle Toneffekte bereichern.

- ♦ **Wenn [AUDIO REC] im Menü auf [16bit] eingestellt worden ist, wird durch die Nachvertonung der Originalton vollständig gelöscht.**
  Wenn Sie daher vorhaben, später Nachvertonung durchzuführen, aber auch den Originalton beibehalten möchten, müssen Sie unbedingt [AUDIO REC] im Menü auf [12bit] einstellen, bevor Sie die Originalaufnahme machen.
- ♦ Auf Aufnahmen, welche im LP-Modus gemacht wurden, kann eine Nachvertonung nicht durchgeführt werden. (➜ 28)

1. **Die Cassette mit der Originalaufnahme einsetzen und den Schalter [POWER] auf [ON] stellen.**
2. **Die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] aufleuchtet.**
3. **An der Stelle, ab welcher Sie den neuen Ton einfügen möchten, den Camerarecorder auf Standbild-Wiedergabe umschalten.**
4. **Die Taste [A.DUB] auf der Fernbedienung drücken.**
5. **Die Pausentaste [❚❚] auf der Fernbedienung drücken, um die Nachvertonung zu starten.**

Stoppen der Nachvertonung

Die Pausentaste [❚❚] auf der Fernbedienung drücken.
Der Camerarecorder ist erneut im Standbild-Wiedergabe-Modus.

ENGLISH

Adding New Sound on a Recorded Cassette

(Audio Dubbing)

To perform audio dubbing, the Remote Controller is necessary.
You can add music or narration on a recorded cassette.

- ♦ **If [AUDIO REC] on the Menu has been set to [16bit], performing audio dubbing will completely erase the previously recorded sound.**
  Therefore, if you intend to perform audio dubbing but also want to keep the original sound, be sure to set [AUDIO REC] on the Menu to [12bit] before making the original recording.
- ♦ It is not possible to perform audio dubbing onto recordings made in the LP Mode. (➜ 28)

1. **Insert the recorded cassette and set the [POWER] Switch to [ON].**
2. **Press the [VCR/CAMERA] Button so that the [VCR] Lamp lights.**
3. **At the point from which you want to insert the new sound, switch the Camera Recorder over to the Still Playback Mode.**
4. **Press the [A.DUB] Button on the Remote Controller.**
5. **Press the Pause Button [❚❚] on the Remote Controller to start audio dubbing.**

Stopping Audio Dubbing

Press the Pause Button [❚❚] on the Remote Controller.
The Camera Recorder is again in the Still Playback Mode.

DEUTSCH

Wiedergabe des mit Nachvertonung aufgezeichneten Tons

♦ Wenn Sie für die Originalaufnahme [AUDIO REC] im Menü auf [12bit] eingestellt hatten, werden der mit Nachvertonung hinzugefügte Ton und der Originalton entsprechend der für [AUDIO OUT] im Menü für die Wiedergabefunktionen gewählten Einstellung wiedergegeben (➜ 122-128):

ST1:	Der Originalton allein wird wiedergegeben.
ST2:	Der Ton der Nachvertonung allein wird wiedergegeben.
MIX:	Der Originalton und der mit Nachvertonung hinzugefügte Ton werden zusammen wiedergegeben.

♦ **Nachvertonung nicht auf Bandabschnitten ohne Originalaufnahme durchführen. Dies könnte Störungen in der Bild- und Tonwiedergabe verursachen.**

- Wenn Sie das Bandzählwerk an der Stelle, wo die Nachvertonung enden soll, auf Null zurückstellen und die Speicherstopp-Funktion (➜ 158) einschalten, stoppt die Nachvertonung beim Erreichen dieser Bandstelle automatisch.

ENGLISH

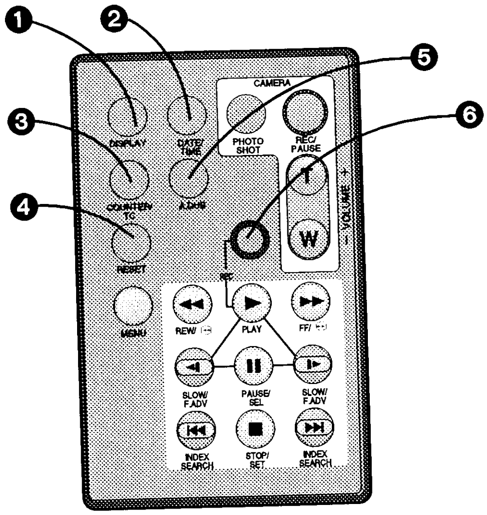
Playing Back the Sound Recorded with Audio Dubbing

♦ If you set [AUDIO REC] on the Menu to [12bit] for the original recording, the sound added with audio dubbing and the original sound are played back as follows depending on the setting selected for [AUDIO OUT] on the VCR Mode Menu (➜ 122-128):

ST1:	The original sound alone is played back.
ST2:	The dubbed sound alone is played back.
MIX:	The original sound and the sound added with audio dubbing are played back together.

♦ **Do not perform audio dubbing onto unrecorded parts of the tape. This could cause the playback picture and sound to be distorted.**

- If you reset the Tape Counter to zero at the point where you want the audio dubbing to end and turn on the Memory Stop Function (➜ 158), the audio dubbing automatically stops when the tape reaches that point.



DEUTSCH

Fernbedienung

Mit der mitgelieferten Fernbedienung können Sie einen Großteil der wichtigsten Funktionen dieses Camerarecorders aus einiger Entfernung auslösen.

Tasten auf der Fernbedienung

❶ Anzeigenausgabe-Taste [DISPLAY] (➜ 58)
Zum Einblenden der Funktions- und Betriebsanzeigen auf einem angeschlossenen Fernsehgerät.

❷ Datums- und Uhrzeit-Taste [DATE/TIME] (➜ 50)
Zum Ein- und Ausblenden der Datums-/Uhrzeit-Anzeige im Bild während der Aufnahme oder Wiedergabe.

❸ Anzeige-Umschalttaste [COUNTER/TC] (➜ 166)
Zum Wählen der gewünschten Zählwerk-Anzeige.

❹ Rückstelltaste [RESET] (➜ 158)
Zum Rückstellen des Bandzählwerkes auf Null.

❺ Nachvertonungstaste [A.DUB] (➜ 104)
Zum Durchführen von Nachvertonung.

❻ Aufnahmetaste [REC] (➜ 118)
Zum Überspielen von Digital-Signalen auf den Camerarecorder über die DV-Eingangs-/Ausgangsbuchse die Taste [REC] zusammen mit der Taste [PLAY] drücken.

ENGLISH

Remote Controller

Using the wireless Remote Controller supplied with the Camera Recorder allows operating most of the Camera Recorder's major functions from a distance.

Buttons on the Remote Controller

❶ Indication Output Button [DISPLAY] (➜ 58)
To display the function and operation indications on a connected TV.

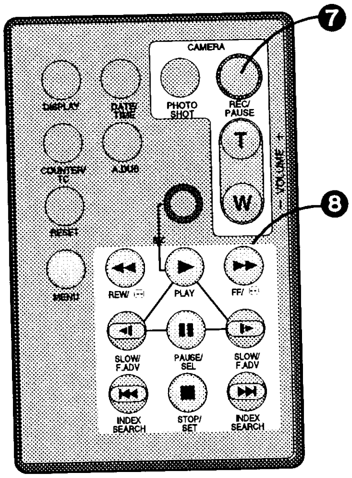
❷ Date and Time Button [DATE/TIME] (➜ 50)
To make the Date/Time Indication appear or disappear in the picture during recording and playback.

❸ Indication Shift Button [COUNTER/TC] (➜ 166)
To select the desired Counter Indication.

❹ Reset Button [RESET] (➜ 158)
To reset the Tape Counter to zero.

❺ Audio Dubbing Button [A.DUB] (➜ 104)
To perform audio dubbing.

❻ Recording Button [REC] (➜ 118)
To dub digital signals input into the Camera Recorder via the DV Input/Output Terminal, press the [REC] Button and the [PLAY] Button together.



DEUTSCH

❼ Tasten für Aufnahme und Tonaussteuerung

Standbild-Aufnahmetaste [PHOTO SHOT] (➜ 44)

Zum Aufnehmen von Standbildern.

Aufnahme-Start-/Stopp-Taste [REC/PAUSE] (➜ 34)

Zum Starten und Stoppen der Aufnahme.

Zoom-/Lautstärkeregler-Tasten [ZOOM/VOLUME]

Zum Heran- und Zurückzoomen. (➜ 42)
Zum Regeln der Lautstärke des Wiedergabetons. (➜ 50)

❽ Tasten für die Wiedergabe/Menü-Einstellungen

Rückspul-/Rückwärts-Bildsuchlauf-Taste [◀◀]

Beim Drücken während normaler Wiedergabe: Zum Starten des Bildsuchlaufs rückwärts (➜ 52); und beim Drücken im Stopp-Modus: Zum Rückspulen des Bandes.
Außerdem beim Gedrückthalten im Aufnahmepause-Modus: Zum Auslösen der Kamera-Suchlauf-Funktion (➜ 62) in Rückwärtsrichtung. Bei kurzem Drücken wird die Aufnahmeprüfungs-Funktion (➜ 36) ausgelöst.

Vorspul-/Vorwärts-Bildsuchlauf-Taste [▶▶]

Beim Drücken während normaler Wiedergabe: Zum Starten des Bildsuchlaufs vorwärts (➜ 52); und beim Drücken im Stopp-Modus: Zum Vorspulen des Bandes.
Außerdem beim Gedrückthalten im Aufnahmepause-Modus: Zum Auslösen der Kamera-Suchlauf-Funktion (➜ 62) in Vorwärtsrichtung.

Wiedergabe-Taste [▶] (➜ 50)

Zum Starten der Wiedergabe.

ENGLISH

❼ Controls for Recording and Sound Volume

Photoshot Button [PHOTO SHOT] (➜ 44)

To record still pictures.

Recording Start/Stop Button [REC/PAUSE] (➜ 34)

To start and pause recording.

Zoom/Sound Volume Buttons [ZOOM/VOLUME]

To zoom in and out. (➜ 42)
To adjust the volume of the playback sound. (➜ 50)

❽ Controls for Playback/Menu Setting

Rewind/Review Button [◀◀]

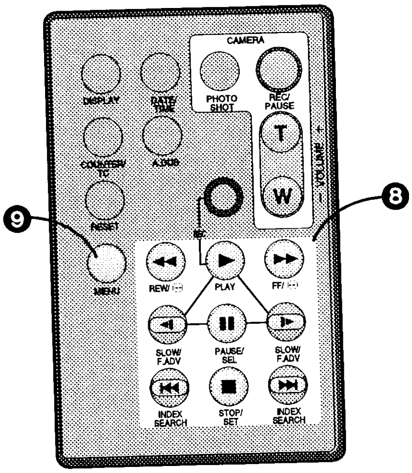
To start review playback (➜ 52) if pressed during normal playback; and to rewind the tape if pressed in the Stop Mode.
Also to activate the Camera Search Function (➜ 62) in reverse direction if kept pressed in the Recording Pause Mode. Pressing it briefly activates the Recording Check Function (➜ 36).

Fast-forward/Cue Button [▶▶]

To start cue playback (➜ 52) if pressed during normal playback; and to fast-forward the tape if pressed in the Stop Mode.
Also to activate the Camera Search Function (➜ 62) in forward direction if kept pressed in the Recording Pause Mode.

Play Button [▶] (➜ 50)

To start playback.



DEUTSCH

⑧ Zeitlupen-/Einzelbild-Taste [◀I, I▶] (➜ 54, 56)

Beim Drücken während normaler Wiedergabe: Zum Auslösen der Zeitlupen-Wiedergabe; und beim Drücken im Standbild-Wiedergabe-Modus: Zur Wiedergabe Standbild um Standbild.
(◀I: In Rückwärtsrichtung; I▶: In Vorwärtsrichtung)

Index-Suchlauf-Taste [I◀◀ , ▶▶I] (➜ 68, 70)

Zum schnellen Auffinden des Anfangs aufgezeichneter Szenen, die mit Index-Signal markiert sind, und von Standbildern, die im Photoshot-Modus aufgezeichnet worden sind.
(I◀◀: In Rückwärtsrichtung; ▶▶I: In Vorwärtsrichtung)

Stopp/Einstell-Taste [■] (➜ 50)

Zum Stoppen des Bandlaufs.

Pausen/Wahl-Taste [❚❚] (➜ 56)

Zum Anhalten der Wiedergabe und Umschalten auf Standbild-Wiedergabe.

⑨ Menü-Taste [MENU]

Beim Drücken der Menü-Taste [MENU] wird das Menü eingeblendet.
In diesem Falle haben die folgenden Tasten geänderte Funktionen:

Pausentaste → Wahl-Taste
Zum Wählen von Einstellpunkten im Menü.

Stopp-Taste → Einstell-Taste
Zum Einstellen des gewünschten Modus für den gewählten Einstellpunkt.

- Die Blende und die Verschlußzeit können nicht mit der Fernbedienung eingestellt werden. Wenn Sie diese manuell einstellen möchten, benutzen Sie dafür den Regler [PUSH] am Camerarecorder. (➜ 90, 92)

ENGLISH

⑧ Slow Motion/Frame Advance Button [◀I , I▶] (➜ 54, 56)

To perform Slow Motion Playback if pressed in the Normal Playback Mode; and to perform Still Advance Playback if pressed in the Still Playback Mode.
(◀I: in reverse direction, I▶: in forward direction)

Index Search Button [I◀◀ , ▶▶I] (➜ 68, 70)

To search for recorded scenes marked with an index signal and for still images recorded in the Photoshot Mode.
(I◀◀: in reverse direction, ▶▶I: in forward direction)

Stop/Set Button [■] (➜ 50)

To stop the tape.

Pause/Select Button [❚❚] (➜ 56)

To pause playback. The playback picture stands still.

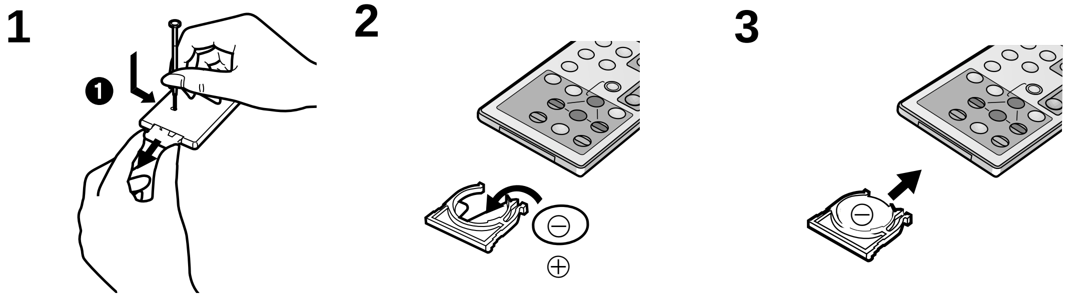
⑨ Menu Button [MENU]

Pressing the Menu Button [MENU] displays the Menu.
In this case, the functions of the following buttons are changed:

Pause Button → Select Button
To select items on the Menu.

Stop Button → Set Button
To set the mode for the selected item.

- The iris and the shutter speed cannot be adjusted with the Remote Controller. If you want to adjust them manually, use the [PUSH] Dial on the Camera Recorder. (➜ 90, 92)



DEUTSCH

Fernbedienung (Fortsetzung)

■ Einsetzen der Knopfzelle

Vor dem Benutzen der Fernbedienung die mitgelieferte Knopfzelle einsetzen.

1. **Den Stopper mit einem spitzen Gegenstand in Pfeilrichtung ❶ schieben und gleichzeitig die Knopfzellen-Halterung herausziehen.**
2. **Die Knopfzelle mit der eingeprägten (+)-Marke nach unten gerichtet einsetzen.**
3. **Die Knopfzellen-Halterung wieder in die Fernbedienung einsetzen.**

- Wenn die Knopfzelle erschöpft ist, durch eine neue vom Typ CR2025 ersetzen.
  (Die Lebensdauer der Knopfzelle beträgt ca. 1 Jahr. Dies hängt jedoch von der Häufigkeit des Einsatzes ab.)

♦ **Die Knopfzelle außer Reichweite von Kindern halten.**

♦ Beim Einsetzen der Knopfzelle auf richtige Polarität achten.

VORSICHT

Bei einer falsch eingesetzten Batterie besteht Explosionsgefahr. Nur mit einer vom Hersteller empfohlenen Batterie vom gleichen Typ ersetzen. Verbrauchte Batterien beim Fachhändler oder einer Sammelstelle für Sonderstoffe abliefern.

ENGLISH

Remote Controller (Continued)

■ Inserting the Button-type Battery

Insert the supplied button-type battery before using the Remote Controller.

1. **Pull out the Battery Holder while sliding the Stopper with a pointed object in the direction of the arrow ❶.**
2. **Insert the button-type battery with the stamped (+) mark facing downward.**
3. **Insert the Battery Holder into the Remote Controller.**

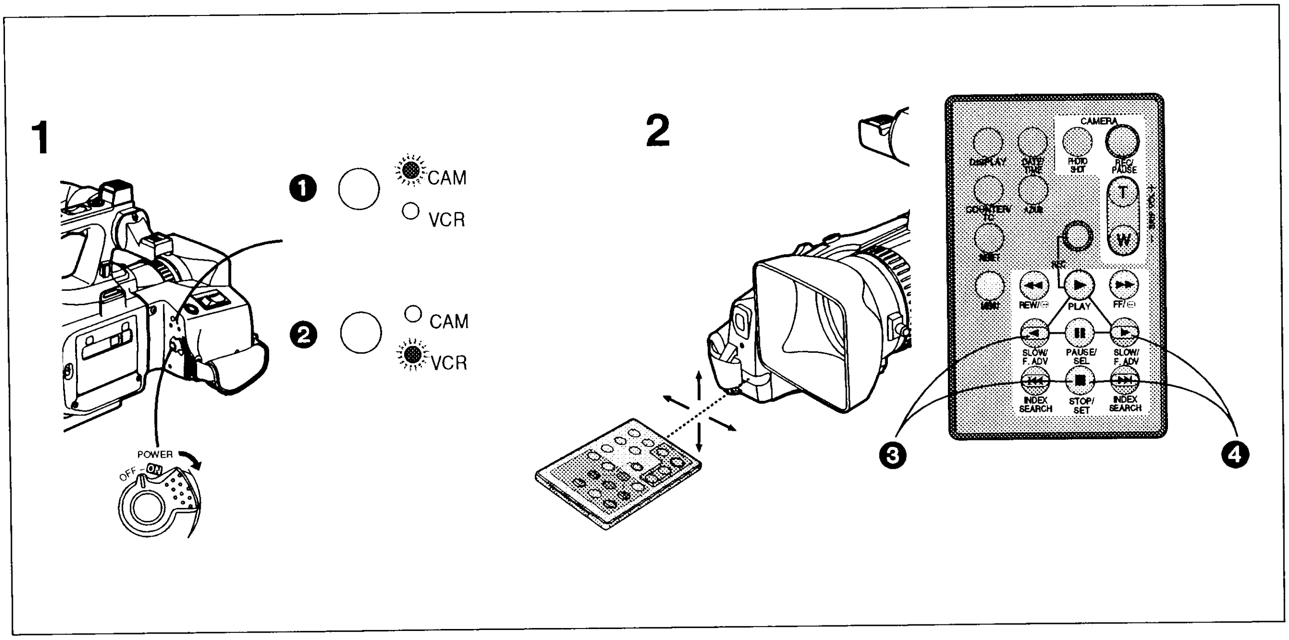
- When the button-type battery is exhausted, replace it with a new CR2025 battery.
  (The life of the battery is about 1 year. However, it depends on the frequency of use.)

♦ **Keep the button-type battery out of the reach of children.**

♦ Make sure you insert the battery with its poles correctly aligned.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer’s instructions.



DEUTSCH

■ Benutzen der Fernbedienung

1 Den Schalter [POWER] am Camerarecorder auf [ON] stellen.

- Wenn die Lampe [CAMERA] leuchtet, können Sie die Aufnahmefunktionen benutzen. ❶
- Wenn Sie die Wiedergabefunktionen benutzen möchten, drücken Sie die Taste [VCR/CAMERA], so daß die Lampe [VCR] aufleuchtet. ❷

2 Die Fernbedienung auf den Fernbedienungs-Sensor am Camerarecorder richten und die entsprechende Taste drücken.

Entfernung zum Camerarecorder: Weniger als 5 Meter.
Winkel: Ca. 15° aufwärts, abwärts, links und rechts von der Mittelachse.

♦ Der vorstehend beschriebene Bedienungsbereich gilt für die Benutzung im Hause.
Bei der Benutzung im Freien oder unter starker Beleuchtung ist u. U. korrektes Funktionieren auch in diesem Bereich nicht gewährleistet.

- Innerhalb eines Abstandes von 1 Meter kann die Fernbedienung auch von der Seite des Camerarecorders (LCD-Monitor-Seite) benutzt werden.

Wählen des Fernbedienungs-Modus

Bei gleichzeitiger Benutzung von zwei Camerarecordern können Sie unterschiedliche Fernbedienungs-Modi wählen, damit Sie beide individuell fernbedienen können.

♦ Wenn an der Fernbedienung und am Camerarecorder nicht der gleiche Fernbedienungs-Modus gewählt ist, erscheint die Anzeige [REMOTE].

♦ Beim Auswechseln der Knopfzelle in der Fernbedienung wird sie automatisch auf den Modus [VCR1] umgeschaltet.

- [REMOTE] im Menü auf den gewünschten Fernbedienungs-Modus einstellen. (➔ 122-128)

❸ **Die Taste [◂ı] und die Taste [■] gleichzeitig drücken.**
Dadurch wird der Modus [VCR2] gewählt.

❹ **Die Taste [ı▸] und die Taste [■] gleichzeitig drücken.**
Dadurch wird der Modus [VCR1] gewählt.

ENGLISH

■ Using the Remote Controller

1 Set the [POWER] Switch on the Camera Recorder to [ON].

- When the [CAMERA] Lamp lights, you can use the recording functions. ❶
- If you want to use the playback functions, press the [VCR/CAMERA] Button so that the [VCR] Lamp lights. ❷

2 Aim the Remote Controller at the Remote Control Sensor on the Camera Recorder and press the appropriate button.

Distance to the Camera Recorder: Less than 5 metres.
Angle: Approximately 15° up, down, left and right from centre axis.

♦ The operative range described above is valid for using the Remote Controller indoors.
When using it outdoors or under strong lights, it may not work correctly even within the above range.

- Within a distance of about 1 metre, it is also possible to use the Remote Controller from the side (LCD Monitor side).

Selecting the Remote Controller Mode

When using two Camera Recorders at the same time, selecting different Remote Controller Modes makes it possible to operate them separately.

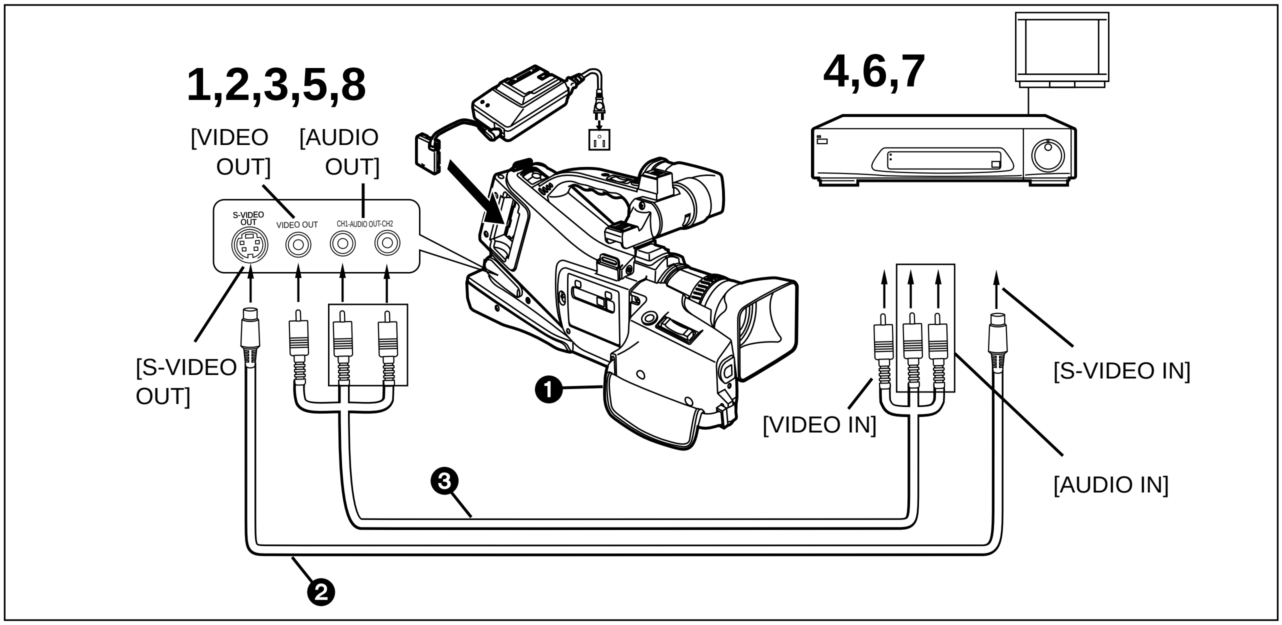
♦ If the Remote Controller Mode set on the Camera Recorder and on its Remote Controller are not matched, the [REMOTE] Indication appears.

♦ Replacing the button-type battery in the Remote Controller automatically resets it to the [VCR1] Mode.

- Set [REMOTE] on the Menu to the desired Remote Controller Mode. (➔ 122-128)

❸ **Press the [◂ı] Button and the [■] Button simultaneously.**
This selects the [VCR2] Mode.

❹ **Press the [ı▸] Button and the [■] Button simultaneously.**
This select the [VCR1] Mode.



DEUTSCH

Kopieren auf eine S-VHS- oder VHS-Cassette (Kopieren)

- Vor dem Kopieren die Taste [DISPLAY] (➜ 58) auf der Fernbedienung drücken, so daß keine Anzeigen eingeblendet sind. Ansonsten werden beim Kopieren auch die Zählwerk-Anzeige und andere Funktionsanzeigen auf die Cassette aufgezeichnet.

1 Camerarecorder:
Den Schalter [POWER] auf [ON] stellen.

2 Camerarecorder:
Die bespielte Cassette einsetzen.

3 Camerarecorder:
Die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] aufleuchtet.

4 Videorecorder:
Eine unbespielte Cassette mit intakter Löschschutzlasche einsetzen.
Da am Videorecorder gewisse Einstellungen (AV-Eingang, Bandgeschwindigkeit usw.) nötig sind, lesen Sie bitte die Bedienungsanleitung des Videorecorders.

5 Camerarecorder:
Die Wiedergabe-Taste [▶] drücken, um die Wiedergabe zu starten.

6 Videorecorder:
Die Aufnahme starten.

7 Videorecorder:
Die Pausen- oder Stopp-Taste drücken, um die Aufnahme zu stoppen.

8 Camerarecorder:
Die Stopp-Taste [■] drücken, um die Wiedergabe zu stoppen.

❶ AG-DVC15
❷ S-Video-Kabel
❸ AV-Kabel

ENGLISH

Copying onto an S-VHS (or VHS) Cassette (Dubbing)

- Before copying, press the [DISPLAY] Button on the Remote Controller (➜ 58) so that no indications appear. Otherwise, the Counter Indication and function indications are also recorded onto the cassette.

1 Camera Recorder:
Set the [POWER] Switch to [ON].

2 Camera Recorder:
Insert the recorded cassette.

3 Camera Recorder:
Press the [VCR/CAMERA] Button so that the [VCR] Lamp lights.

4 VCR:
Insert an unrecorded cassette with intact erasure prevention tab.
As some settings (external input, tape speed, etc.) on the VCR are necessary, please refer to your VCR's operating instructions.

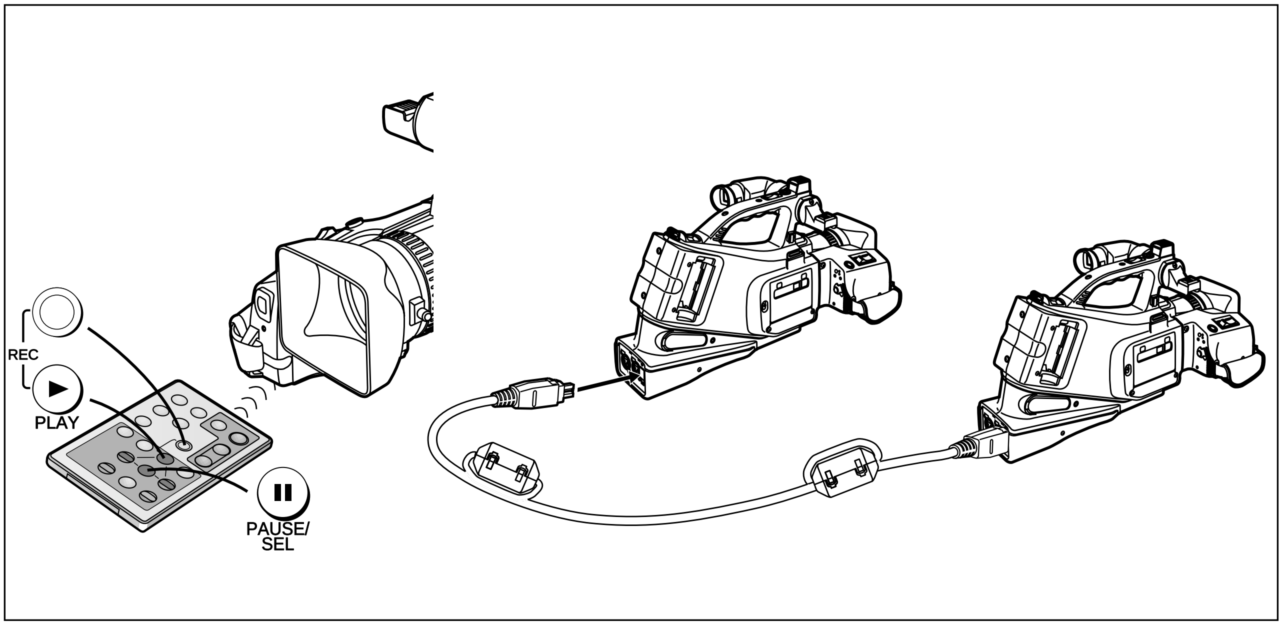
5 Camera Recorder:
Press the Play Button [▶] to start playback.

6 VCR:
Start recording.

7 VCR:
Press the Pause or Stop Button to stop recording.

8 Camera Recorder:
Press the Stop Button [■] to stop playback.

❶ AG-DVC15
❷ S-Video Cable
❸ AV Cable



DEUTSCH

Einsatz zusammen mit digitalen Videogeräten (Aufnahme)

Wenn Sie diesen Camerarecorder über das DV-Kabel (Sonderzubehör) mit einem anderen digitalen Videogerät (beispielsweise einem anderen Camerarecorder vom gleichen Typ) verbinden, der mit einer DV-Eingangs-/Ausgangsbuchse ausgestattet ist, können Sie hochqualitatives Überspielen von Bild und Ton durchführen. Die Fernbedienung wird benötigt, um mit dem AG-DVC15 aufzunehmen.

1. [Wiedergabegerät]
   Die bespielte Cassette einsetzen und die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] aufleuchtet.
2. [Aufnahmegerät]
   Eine Cassette einsetzen, auf welche die Überspielung gemacht werden soll, und dann die Taste [VCR/CAMERA] drücken, damit die Lampe [VCR] aufleuchtet.
3. [Wiedergabegerät]
   Die Wiedergabetaste [▶] drücken, um die Wiedergabe zu starten.
4. [Aufnahmegerät]
   Die Taste [REC] gedrückt halten und gleichzeitig die Taste [PLAY] (beide auf der Fernbedienung) drücken.
   Die Aufnahme beginnt.

Beenden der Aufnahme

Die Pausentaste [❚❚] oder die Stopp-Taste [■] drücken, um die Aufnahme zu stoppen.

- Die Aufnahme auf dem Aufnahmegerät wird im gleichen Tonaufnahme-Modus wie die Wiedergabe, unabhängig von der im Menü des Aufnahmegerätes gewählten Einstellung für [AUDIO REC].
- Im unteren Teil des Bildes (LCD-Monitor oder Sucher des Aufnahmegerätes oder angeschlossenes Fernsehgerät) können Bildstörungen auftreten, oder das Bild kann vertikal schwanken. Dies ist jedoch keine Funktionsstörung und hat keinen Einfluß auf die effektive Aufzeichnung.
- Beim Überspielen eines unbespielten Bandabschnittes wird ein Störbild aufgezeichnet.

ENGLISH

Using with Digital Video Equipment
(Recording)

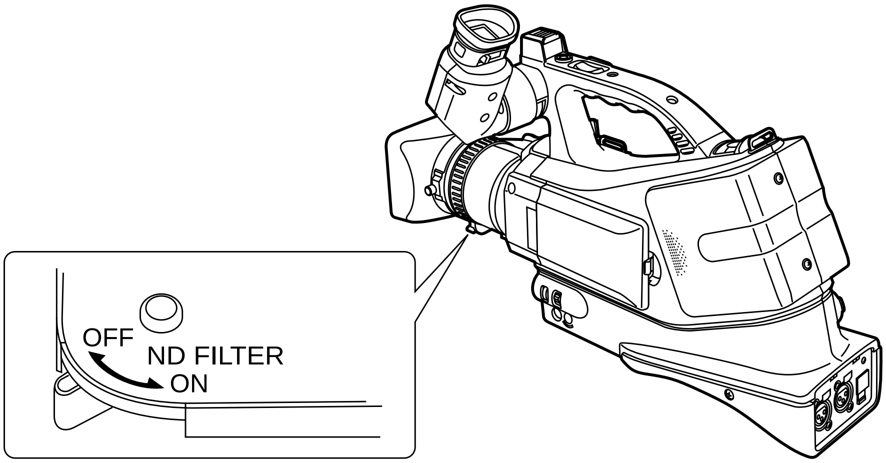
If you connect this Camera Recorder with other Digital Video equipment (for example another Camera Recorder of the same type) equipped with DV Input/Output Terminal using the DV Cable (optional), you can dub high-quality picture and sound in the digital format. The remote controller is necessary to record with the AG-DVC15.

1. [Playback Unit]
   Insert the recorded cassette and press the [VCR/CAMERA] Button so that the [VCR] Lamp lights.
2. [Recording Unit]
   Insert a cassette onto which you want to perform dubbing and press the [VCR/CAMERA] Button so that the [VCR] Lamp lights.
3. [Playback Unit]
   Press the Play Button [▶] to start playback.
4. [Recording Unit]
   While pressing the [REC] Button, press the [PLAY] Button (both on the Remote Controller).
   Recording starts.

Stopping Recording

Press the Pause Button [❚❚] or the Stop Button [■] to stop recording.

- The recording is made in the same audio recording mode as the playback, regardless of the selected setting for [AUDIO REC] made on the recording unit.
- On the recording unit (LCD Monitor or Finder) or on a connected TV, the picture may contain distortion or may shake vertically. However, this is not a malfunction and does not affect the actual recording.
- During dubbing of an unrecorded part of the tape, picture noise is recorded.



DEUTSCH

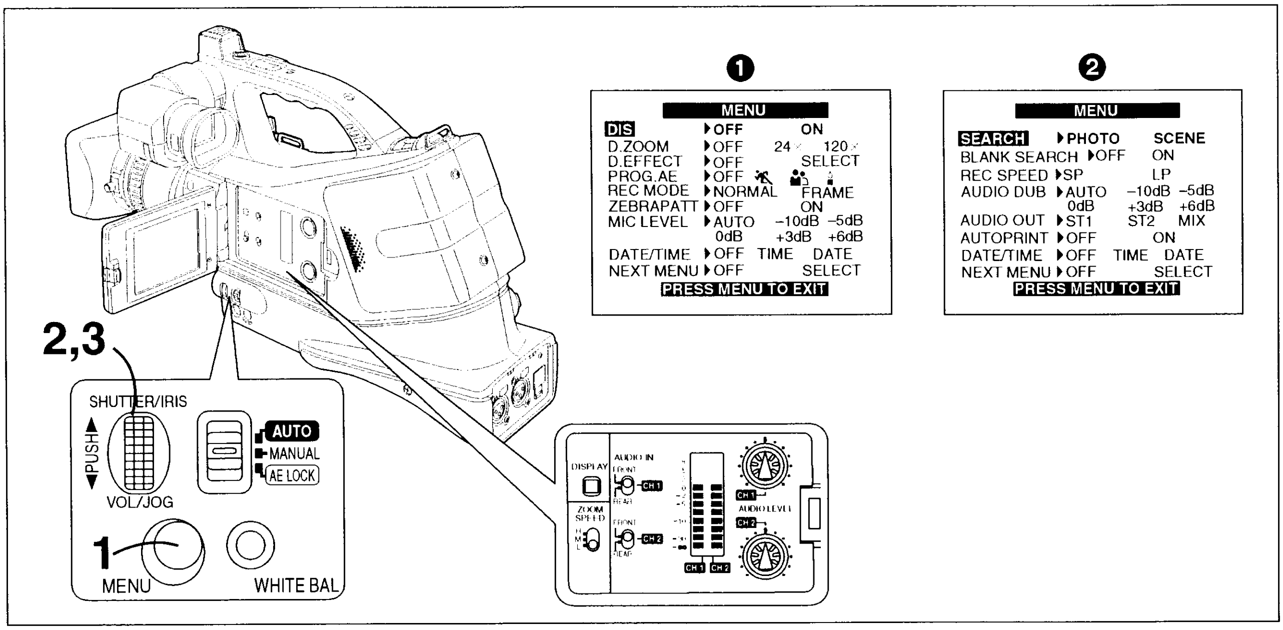
ND-Filter

- Dieses Filter reduziert die Lichtmenge auf etwa 1/8, ohne die Farben zu beeinflussen.
- Die Schärfentiefe wird geringfügig reduziert.
- Weißabgleich ist auch mit dem Filter möglich. Wird jedoch bei Verwendung des ND-Filters mit Weißabgleich-Automatik aufgenommen, erhält man eventuell keine genaue Weißabgleich-Einstellung. Daher ist es empfehlenswert, bei Aufnahmen mit dem ND-Filter den manuellen Weißabgleich zu verwenden.
- Wird bei Aufnahmen mit Filter auf die extreme Weitwinkel-Stellung gezoomt, können die vier Ecken des Bilds dunkel werden (Vignettierungseffekt).
- Beachten Sie, dass keine Anzeige im Sucher erscheint, selbst wenn das ND-Filter hinzugeschaltet wird.

ENGLISH

ND Filter

- This filter reduces the amount of light to approximately 1/8th but does not affect the colors.
- The depth of field is slightly reduced.
- White balance adjustment is possible even with the tilter. However, when using the ND Filter and recording with Auto White Balance, the white balance adjustment may not be precise. Therefore, we recommend that you use the Manual White Balance Mode when recording with the ND Filter.
- When you record with a filter and zoom to the extreme wide-angle setting, the four corners of the picture may become dark (vignetting effect).
- Note that even if the ND filter is set ON, nothing will appear in the viewfinder.



❶

```
              MENU
DIS          ▶OFF          ON
D.ZOOM       ▶OFF     24×    120×
D.EFFECT     ▶OFF          SELECT
PROG.AE      ▶OFF
REC MODE     ▶NORMAL       FRAME
ZEBRAPATT    ▶OFF          ON
MIC LEVEL    ▶AUTO    -10dB  -5dB
               0dB    +3dB   +6dB
DATE/TIME    ▶OFF   TIME    DATE
NEXT MENU    ▶OFF          SELECT
        PRESS MENU TO EXIT
```

❷

```
              MENU
SEARCH        ▶PHOTO       SCENE
BLANK SEARCH ▶OFF      ON
REC SPEED    ▶SP           LP
AUDIO DUB    ▶AUTO    -10dB  -5dB
               0dB    +3dB   +6dB
AUDIO OUT    ▶ST1     ST2    MIX
AUTOPRINT    ▶OFF          ON
DATE/TIME    ▶OFF   TIME    DATE
NEXT MENU    ▶OFF          SELECT
        PRESS MENU TO EXIT
```

DEUTSCH

Benutzen des Menüs

1 Die Taste [MENU] drücken.

Das Menü erscheint.
Den [DISPLAY] drücken wenn das Menü nicht auf dem LCD-Monitor erscheint.

2 Den Regler [PUSH] drehen, um den gewünschten Einstellpunkt zu wählen.

Beim Drehen des Reglers [PUSH] bewegt sich der Leuchtblock zum nächsten Einstellpunkt.

3 Den Regler [PUSH] drücken, um den gewählten Einstellpunkt auf die gewünschte Einstellung einzustellen.

Bei jedem Druck bewegt sich der Cursor [▶] zum nächsten Modus.

Einblenden des Menüs für die Aufnahmefunktionen ❶

Im Aufnahmepause-Modus die Taste [MENU] drücken.

- Solange das Menü eingeblendet ist, können Sie nicht aufnehmen.
- Während des Aufnehmens können Sie das Menü nicht einblenden.

Einblenden des Menüs für die Wiedergabe-Funktionen ❷

Die Taste [MENU] drücken, wenn die Lampe [VCR] leuchtet.

- Solange das Menü eingeblendet ist, können Sie nicht wiedergeben.
- Sie Können das Menü aber auch während der Wiedergabe einblenden.

Ausblenden des Menüs

Die Taste [MENU] erneut drücken.
Beim Wählen der Menümode setzt sich die Menümode fort, wenn auch das Menüanzeige vom Anzeigeknopf gelöscht wird.

Hinweise zu den im Menü gemachten Einstellungen

Die Einstellungen, die Sie im Menü gewählt haben, werden auch beim Ausschalten des Camerarecorders beibehalten. Wenn Sie jedoch die Stromversorgungseinheit (Akku, Netzadapter) vom Camerarecorder trennen, bevor Sie diesen ausschalten, werden die gewählten Einstellungen u. U. nicht beibehalten.

ENGLISH

Using the Menu Screen

1 Press the [MENU] Button.

The Menu appears.
Press the [DISPLAY] Button when the menu does not appear on the LCD monitor.

2 Turn the [PUSH] Dial to select the item to be set.

Turning the [PUSH] Dial changes the highlighted item.

3 Press the [PUSH] Dial to set the selected item to the desired mode.

Every press moves the cursor [▶] to the next mode.

Displaying the Camera Mode Menu ❶

Press the [MENU] Button in the Recording Pause Mode.

- While the Menu is displayed, recording is not possible.
- During recording, displaying the Menu is not possible.

Displaying the VCR Mode Menu ❷

Press the [MENU] Button when the [VCR] Lamp is lit.

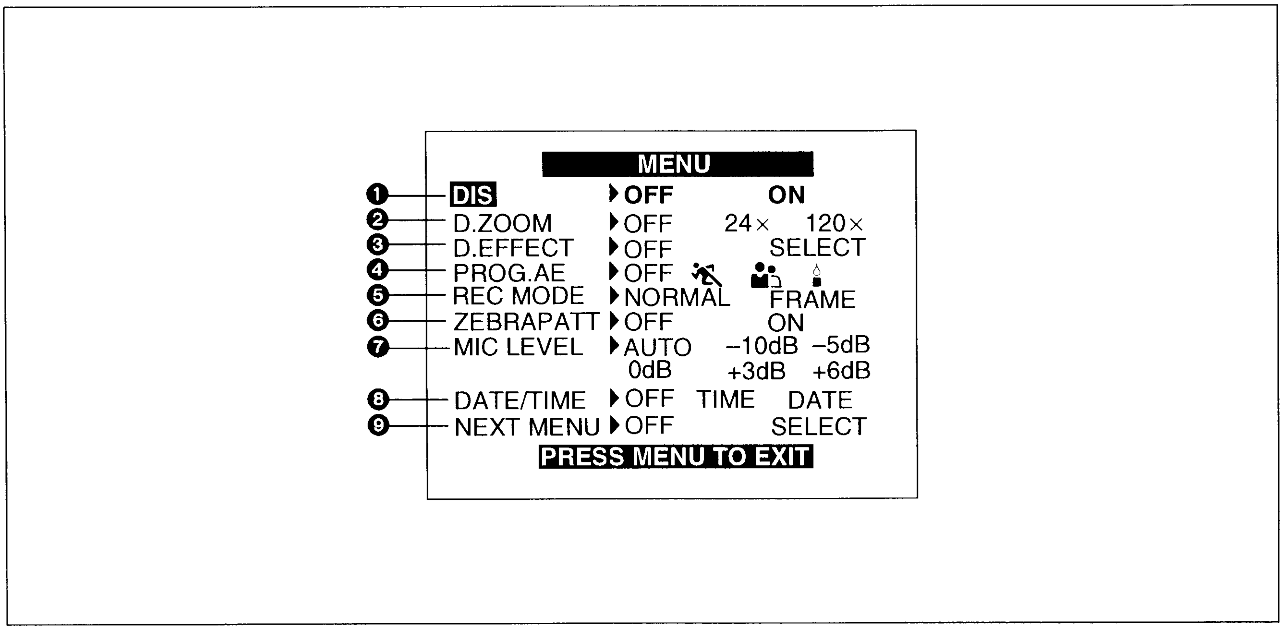
- While the Menu is displayed, playback is not possible.
- During playback, displaying the Menu is possible.

Exiting the Menu

Press the [MENU] Button again.
With menu mode selected, the menu mode will continue even when the menu display is deleted by the Display Button.

Note About the Settings Made on the Menu

The settings you selected on the Menu are maintained when you turn the Camera Recorder off. However, if you disconnect the power supply unit (Battery or AC Adapter) from the Camera Recorder before turning it off, the selected settings may not be maintained.


MENU
① DIS ▸OFF ON
② D.ZOOM ▸OFF 24× 120×
③ D.EFFECT ▸OFF SELECT
④ PROG.AE ▸OFF
⑤ REC MODE ▸NORMAL FRAME
⑥ ZEBRAPATT ▸OFF ON
⑦ MIC LEVEL ▸AUTO −10dB −5dB 0dB +3dB +6dB
⑧ DATE/TIME ▸OFF TIME DATE
⑨ NEXT MENU ▸OFF SELECT
PRESS MENU TO EXIT

DEUTSCH

Menü-Funktionen

Menü für die Aufnahmefunktionen

❶ **Digital-Bildstabilisator [DIS] (➜ 48)**

❷ **Digital-Zoom [D.ZOOM] (➜ 42)**

❸ **Digital-Effekte [D.EFFECT] (➜ 80, 82, 84)**

❹ **Belichtungsautomatik-Programm-Modi [PROG.AE] (➜ 74)**

❺ **Aufnahme-Modus [REC MODE] (➜ 98)**

❻ **Zebramuster [ZEBRAPATT] (➜ 96)**

❼ **Audiopegel [MIC LEVEL] (➜ 100)**

❽ **Datums- und Uhrzeit-Anzeige [DATE/TIME] (➜ 50)**

❾ **Weitere Einstellpunkte [NEXT MENU] (➜ 126)**
Wenn Sie [NEXT MENU] auf [SELECT] einstellen, erscheint das nächste Menu.

ENGLISH

Menu Functions

Camera Mode Menu

❶ **Digital Image Stabilizer [DIS] (➜ 48)**

❷ **Digital Zoom [D.ZOOM] (➜ 42)**

❸ **Digital Effects [D.EFFECT] (➜ 80, 82, 84)**

❹ **Auto Exposure Modes [PROG.AE] (➜ 74)**

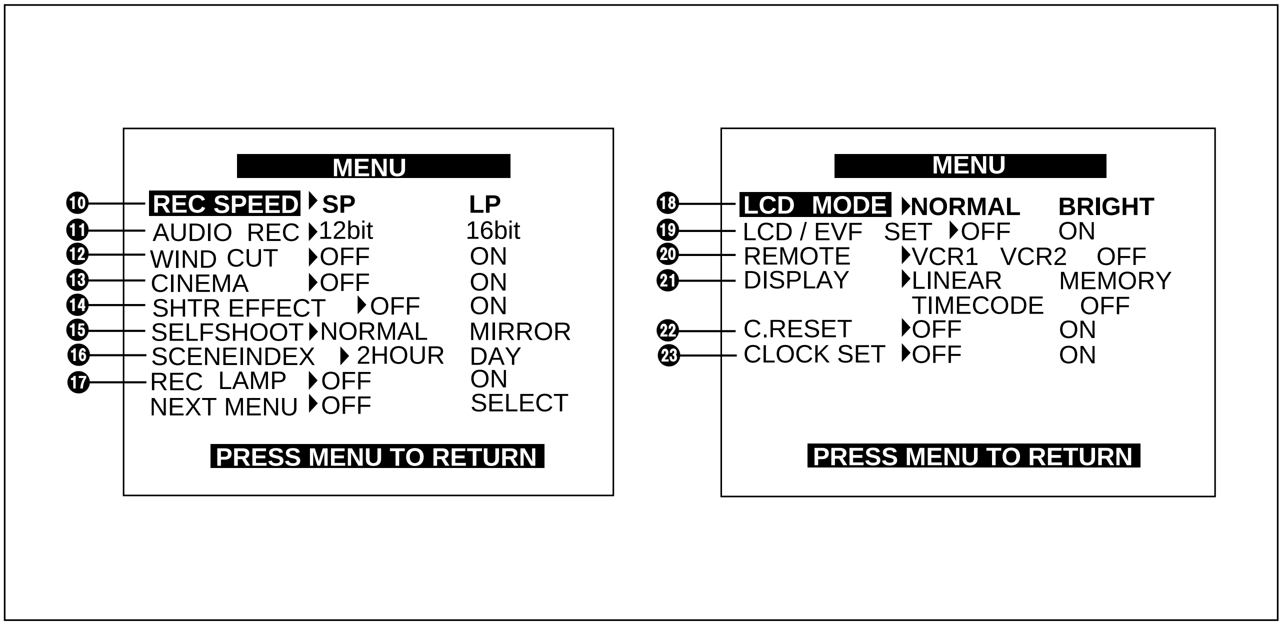
❺ **Recording Mode [REC MODE] (➜ 98)**

❻ **Zebra Pattern [ZEBRAPATT] (➜ 96)**

❼ **Audio Level [MIC LEVEL] (➜ 100)**

❽ **Date and Time Indication [DATE/TIME] (➜ 50)**

❾ **Other Items [NEXT MENU] (➜ 126)**
If you set [NEXT MENU] to [SELECT], the next menu appears.


MENU
⑩ REC SPEED ▸SP LP
⑪ AUDIO REC ▸12bit 16bit
⑫ WIND CUT ▸OFF ON
⑬ CINEMA ▸OFF ON
⑭ SHTR EFFECT ▸OFF ON
⑮ SELFSHOOT ▸NORMAL MIRROR
⑯ SCENEINDEX ▸2HOUR DAY
⑰ REC LAMP ▸OFF ON
NEXT MENU ▸OFF SELECT
PRESS MENU TO RETURN
MENU
⑱ LCD MODE ▸NORMAL BRIGHT
⑲ LCD / EVF SET ▸OFF ON
⑳ REMOTE ▸VCR1 VCR2 OFF
㉑ DISPLAY ▸LINEAR MEMORY
TIMECODE OFF
㉒ C.RESET ▸OFF ON
㉓ CLOCK SET ▸OFF ON
PRESS MENU TO RETURN

DEUTSCH

⑩ **Aufnahmegeschwindigkeits-Modus [REC SPEED] (➜ 28)**

⑪ **Tonaufnahme-Modus [AUDIO REC] (➜ 102)**

⑫ **Windschutzfilter [WIND CUT]**
Wenn Sie [WIND CUT] auf [ON] stellen, werden Windgeräusche unterdrückt. Dies hat jedoch auch eine geringe Verschlechterung der Tonwiedergabe im Baßbereich zur Folge.

⑬ **Aufnahme im Kinoformat-Modus [CINEMA] (➜ 46)**

⑭ **Verschlußeffekt [SHTR EFFECT] (➜ 44)**

⑮ **Selbstaufnahme [SELFSHOOT] (➜ 38)**

⑯ **Szenen-Index-Modus [SCENEINDEX] (➜ 66)**

⑰ **Aufnahme-Anzeigelampe [REC LAMP] (➜ 34)**

⑱ **LCD-Beleuchtungsmodus [LCD MODE] (➜ 134)**

⑲ **LCD- und Sucher-Einstellung [LCD/EVF SET] (➜ 134)**

⑳ **Fernbedienungs-Modus [REMOTE] (➜ 114)**

㉑ **Zählwerkanzeige-Modus [DISPLAY] (➜ 166)**

㉒ **Zählwerk-Rückstellung [C.RESET] (➜ 158)**
Zum Zurückstellen des Zählwerkes auf Null.
Der Timecode kann jedoch nicht auf Null zurückgestellt werden.

㉓ **Datums- und Uhrzeit-Einstellung [CLOCK SET] (➜ 130)**

ENGLISH

⑩ **Recording Speed Mode [REC SPEED] (➜ 28)**

⑪ **Audio Recording Mode [AUDIO REC] (➜ 102)**

⑫ **Wind Buffer [WIND CUT]**
If you set [WIND CUT] to [ON], the noise of the wind hitting the Microphone is reduced. However, this also causes a slight deterioration of the sound reproduction in the bass range.

⑬ **Cinema-like Format Recording [CINEMA] (➜ 46)**

⑭ **Shutter Effect [SHTR EFFECT] (➜ 44)**

⑮ **Self-Recording [SELFSHOOT] (➜ 38)**

⑯ **Scene Index Mode [SCENEINDEX] (➜ 66)**

⑰ **Recording Lamp [REC LAMP] (➜ 34)**

⑱ **LCD Lighting Mode [LCD MODE] (➜ 134)**

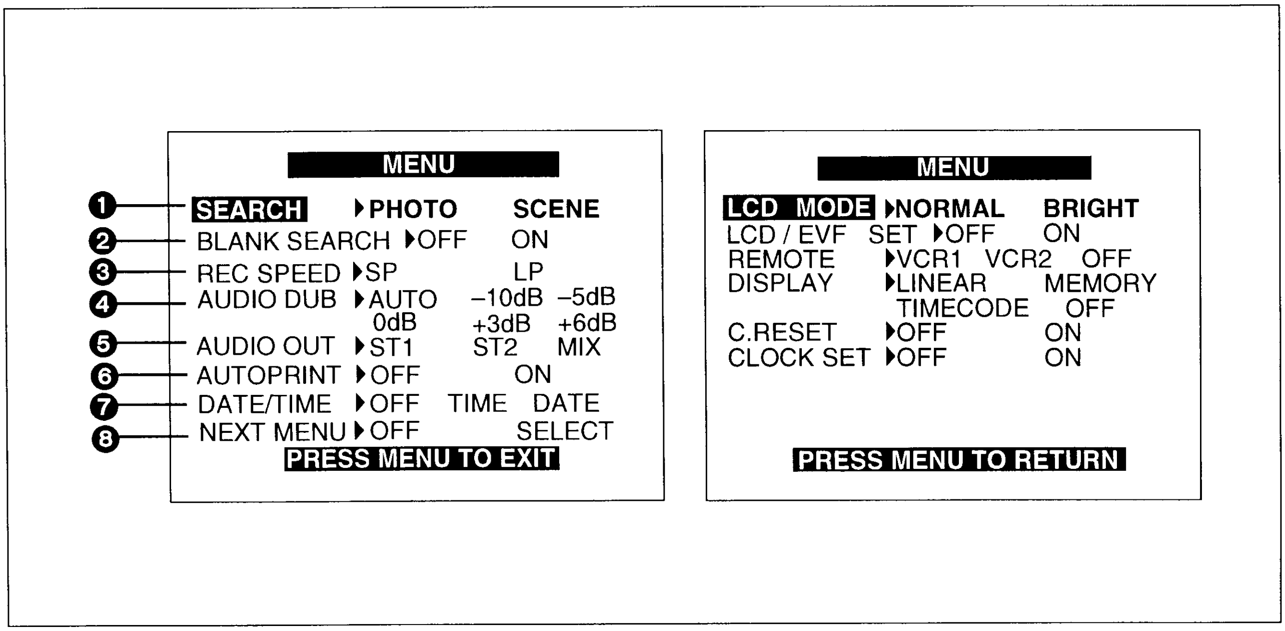
⑲ **LCD and Finder Adjustment [LCD/EVF SET] (➜ 134)**

⑳ **Remote Controller Mode [REMOTE] (➜ 114)**

㉑ **Counter Display Mode [DISPLAY] (➜ 166)**

㉒ **Counter Reset [C.RESET] (➜ 158)**
To reset the counter to zero.
However, the Time Code cannot be reset.

㉓ **Date and Time Setting [CLOCK SET] (➜ 130)**



```
MENU
SEARCH        ▶PHOTO     SCENE
BLANK SEARCH ▶OFF    ON
REC SPEED ▶SP          LP
AUDIO DUB  ▶AUTO    -10dB  -5dB
              0dB      +3dB  +6dB
AUDIO OUT  ▶ST1      ST2     MIX
AUTOPRINT ▶OFF        ON
DATE/TIME  ▶OFF   TIME   DATE
NEXT MENU ▶OFF        SELECT
PRESS MENU TO EXIT
```

```
MENU
LCD MODE ▶NORMAL     BRIGHT
LCD / EVF  SET ▶OFF     ON
REMOTE       ▶VCR1  VCR2   OFF
DISPLAY      ▶LINEAR      MEMORY
                TIMECODE    OFF
C.RESET      ▶OFF           ON
CLOCK SET ▶OFF           ON

PRESS MENU TO RETURN
```

DEUTSCH

Menü für die Wiedergabe-Funktionen

1. **Index-Suchlauf [SEARCH] (➜ 68, 70)**
2. **Leerstellen-Suchlauf [BLANK SEARCH] (➜ 64)**
3. **Aufnahmegeschwindigkeits-Modus [REC SPEED] (➜ 28)**
4. **Audiopegel [AUDIO DUB] (➜ 100)**
5. **Audio-Ausgangsmodus [AUDIO OUT] (➜ 104)**
6. **Automatik-Druck [AUTOPRINT]***
7. **Datums- und Uhrzeit-Anzeige [DATE/TIME] (➜ 50)**
8. **Weitere Einstellpunkte [NEXT MENU]**
   Wenn Sie [NEXT MENU] auf [SELECT] einstellen, erscheint das nächste Menu. Dieses Menü ist gleich wie das dritte Menü für die Aufnahmefunktionen. (➜ 126)

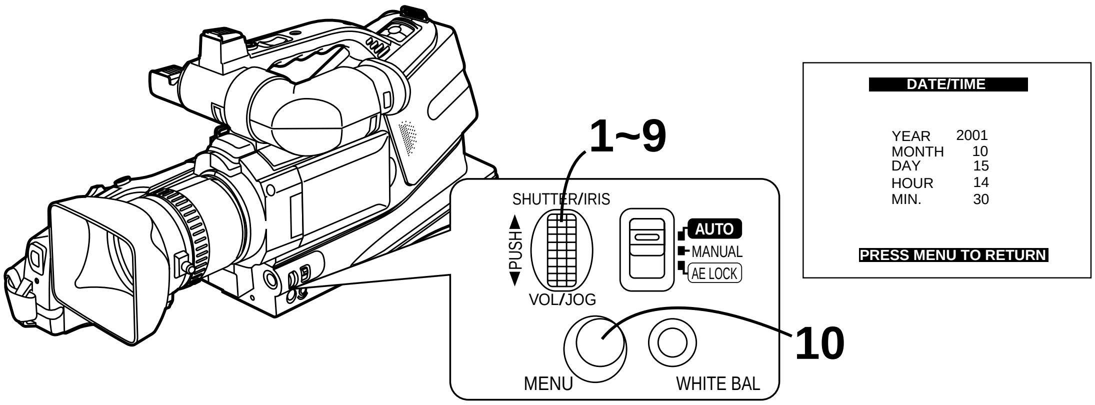
***Dieser Menüpunkt funktioniert nicht.**

ENGLISH

VCR Mode Menu

1. **Index Search [SEARCH] (➜ 68, 70)**
2. **Blank Search [BLANK SEARCH] (➜ 64)**
3. **Recording Speed Mode [REC SPEED] (➜ 28)**
4. **Audio Level [AUDIO DUB] (➜ 100)**
5. **Audio Output Mode [AUDIO OUT] (➜ 104)**
6. **Automatic Printing [AUTOPRINT]***
7. **Date and Time Indication [DATE/TIME] (➜ 50)**
8. **Other Items [NEXT MENU]**
   If you set [NEXT MENU] to [SELECT], the next menu appears. This is the same menu as the third menu of the Camera Mode. (➜ 126)

***This menu item does not function.**



YEAR 2001
MONTH 10
DAY 15
HOUR 14
MIN. 30

DEUTSCH

Einstellen von Datum und Uhrzeit

Beim Wählen von [NEXT MENU] im Menü (entweder im Menü für die Aufnahmefunktionen oder im Menü für die Wiedergabe-Funktionen) und anschließendem Einstellen von [CLOCK SET] auf [ON] wird das oben gezeigte Menü angezeigt. (➜ 126)

Beispiel: Einstellen der Uhr auf 15. Oktober 2001, 14:30 Uhr

1. **Den Regler [PUSH] drehen, um auf [2001] einzustellen.**
2. **Den Regler [PUSH] drücken, um [MONTH] (Monat) zu wählen.**
3. **Den Regler [PUSH] drehen, um auf [10] einzustellen.**
4. **Den Regler [PUSH] drücken, um [DAY] (Tag) zu wählen.**
5. **Den Regler [PUSH] drehen, um auf [15] einzustellen.**
6. **Den Regler [PUSH] drücken, um [HOUR] (Stunde) zu wählen.**
7. **Den Regler [PUSH] drehen, um auf [14] einzustellen.**
8. **Den Regler [PUSH] drücken, um [MIN.] (Minute) zu wählen.**
9. **Den Regler [PUSH] drehen, um auf [30] einzustellen.**
10. **Die Taste [MENU] drücken, um das Einstellen von Datum und Uhrzeit zu beenden.**
    Die Uhr läuft an von [00] Sekunden.

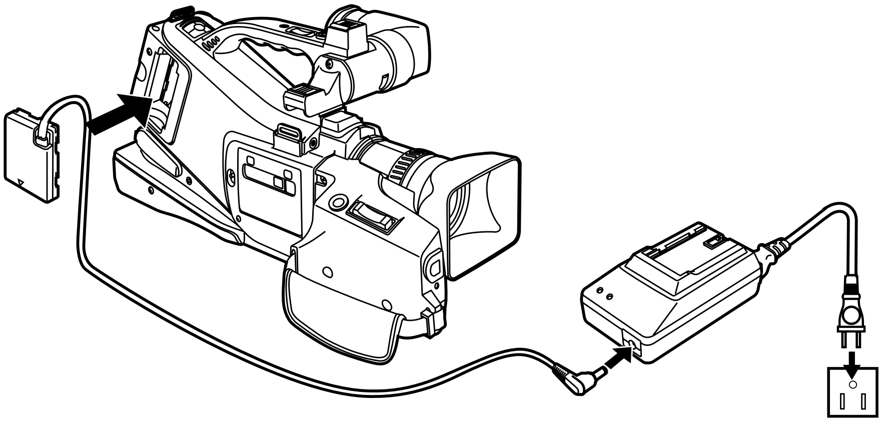
ENGLISH

Setting the Date and Time

Selecting [NEXT MENU] on the Menu (either Camera Mode Menu or VCR Mode Menu) and setting [CLOCK SET] to [ON] displays the menu shown above. (➜ 126)

For example: To set the clock to 15th October 2001, 14:30.

1. **Turn the [PUSH] Dial to set to [2001].**
2. **Press the [PUSH] Dial to select [MONTH].**
3. **Turn the [PUSH] Dial to set to [10].**
4. **Press the [PUSH] Dial to select [DAY].**
5. **Turn the [PUSH] Dial to set to [15].**
6. **Press the [PUSH] Dial to select [HOUR].**
7. **Turn the [PUSH] Dial to set to [14].**
8. **Press the [PUSH] Dial to select [MIN.].**
9. **Turn the [PUSH] Dial to set to [30].**
10. **Press the [MENU] Button to finish the date and time setting.**
    The operation of the clock starts from [00] seconds.



DEUTSCH

- Da geringfügige Abweichungen in der Zeitanzeige auftreten können, empfehlen wir Ihnen, vor dem Aufnahmebeginn zu prüfen, ob die Uhrzeit im Camerarecorder korrekt ist. Wenn die Anzeige [⊘] erscheint, muß die eingebaute Lithium-Batterie aufgeladen und das Datum und die Uhrzeit neu eingestellt werden.
- Die Jahre wechseln in folgender Reihenfolge:
  1990 → 1991 → ... → 2089 →1990 →..

Aufladen der eingebauten Lithium-Batterie

Die eingebaute Batterie versorgt die Uhr im Camerarecorder mit Strom. Wenn die Anzeige [⊘] erscheint, ist die eingebaute Batterie entladen. Die Batterie auf nachstehend beschriebene Weise aufladen und anschließend das Datum und die Uhrzeit neu einstellen.

1 Den Netzadapter an den Camerarecorder und an eine Netzsteckdose anschließen. (➜ 20)

2 Den Camerarecorder ausgeschaltet lassen.

3 Den Camerarecorder während ca. 4 Stunden in diesem Zustand lassen.

Nach ca. 4stündigem Aufladen der eingebautem Lithium-Batterie kann sie den Betrieb der Uhr ca. 3 Monate lang aufrechterhalten.

ENGLISH

- As small imprecisions in the time indication can occur, we recommend that you confirm that the time shown is correct before you start recording. When the [⊘] Indication appears, charge the built-in lithium battery and set the date and time again.
- The years change in the following order:
  1990 → 1991 → ... → 2089 →1990 →..

Charging the Built-in Lithium Battery

The built-in battery maintains the operation of the clock. When the [⊘] Indication appears, the built-in lithium battery is discharged. Charge the discharged battery in the following way and after charging is finished, set the date and time.

1 Connect the AC Adapter to the Camera Recorder and to an AC mains socket. (➜ 20)

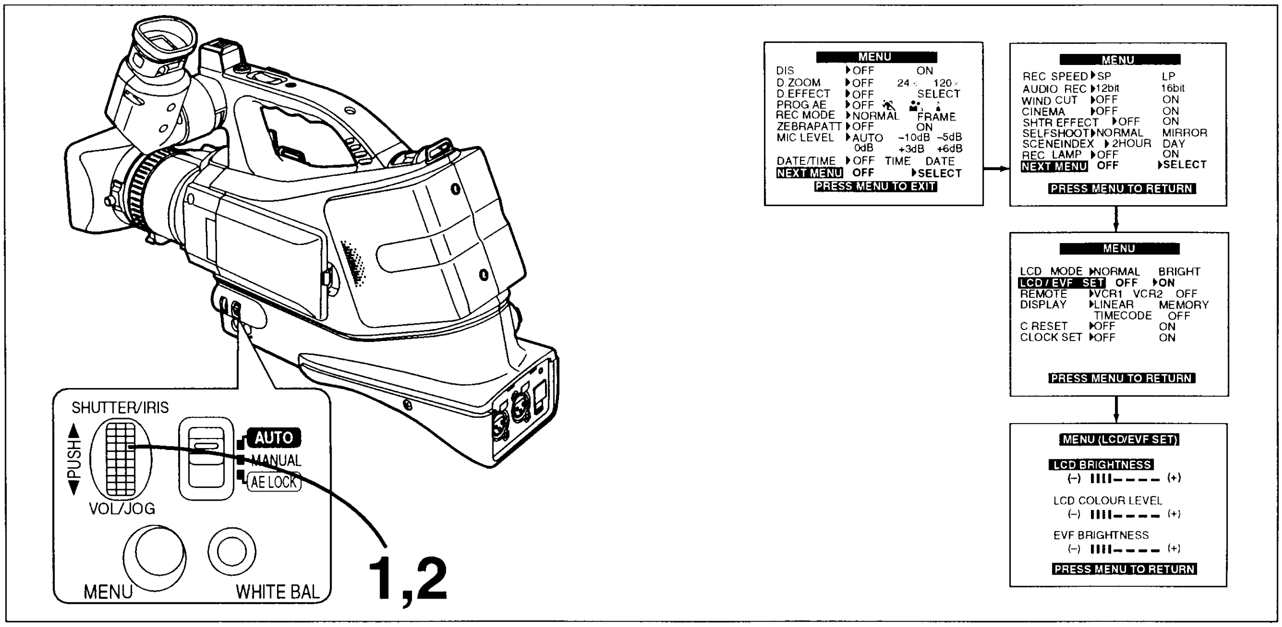
2 Leave the Camera Recorder turned off.

3 Leave the Camera Recorder in this condition for approximately 4 hours.

After charging for 4 hours, the built-in lithium battery can power the clock for approximately 3 months.

WARNING

THE LITHIUM BATTERY IN THIS EQUIPMENT MUST ONLY BE REPLACED BY QUALIFIED PERSONNEL. WHEN NECESSARY, CONTACT YOUR LOCAL PANASONIC SUPPLIER.


SHUTTER/IRIS
PUSH
VOL/JOG
AUTO
MANUAL
AE LOCK
MENU
WHITE BAL
1,2
MENU
DIS ▶OFF ON
D.ZOOM ▶OFF 24× 120×
D.EFFECT ▶OFF SELECT
PROG.AE ▶OFF
REC MODE ▶NORMAL FRAME
ZEBRAPATT ▶OFF ON
MIC LEVEL ▶AUTO −10dB −5dB 0dB +3dB +6dB
DATE/TIME ▶OFF TIME DATE
NEXT MENU OFF ▶SELECT
PRESS MENU TO EXIT
MENU
REC SPEED ▶SP LP
AUDIO REC ▶12bit 16bit
WIND CUT ▶OFF ON
CINEMA ▶OFF ON
SHTR EFFECT ▶OFF ON
SELFSHOOT ▶NORMAL MIRROR
SCENEINDEX ▶2HOUR DAY
REC LAMP ▶OFF ON
NEXT MENU OFF ▶SELECT
PRESS MENU TO RETURN
MENU
LCD MODE ▶NORMAL BRIGHT
LCD / EVF SET OFF ▶ON
REMOTE ▶VCR1 VCR2 OFF
DISPLAY ▶LINEAR MEMORY TIMECODE OFF
C.RESET ▶OFF ON
CLOCK SET ▶OFF ON
PRESS MENU TO RETURN
MENU (LCD/EVF SET)
LCD BRIGHTNESS
(−) IIII− − − − (+)
LCD COLOUR LEVEL
(−) IIII− − − − (+)
EVF BRIGHTNESS
(−) IIII− − − − (+)
PRESS MENU TO RETURN

DEUTSCH

Einstellen des LCD-Monitors

Beim Wählen von [NEXT MENU] im Menü (entweder im Menü für die Aufnahmefunktionen oder im Menü für die Wiedergabe-Funktionen) und anschließendem Einstellen von [LCD/EVF SET] auf [ON] werden die folgenden Einstellpunkte angezeigt. (➜ 122-128)

Helligkeit des LCD-Monitors [LCD BRIGHTNESS]
Zum Justieren der Helligkeit des Flüssigkristall-Bildschirms. Die Balkenanzeige ist in 8 Stufen unterteilt. Je mehr vertikale Balken sichtbar sind, desto heller ist der Bildschirm.

Farbsättigung des LCD-Monitors [LCD COLOUR LEVEL]
Zum Justieren der Intensität der Farben auf dem Flüssigkristall-Bildschirm. Die Balkenanzeige ist in 8 Stufen unterteilt. Je mehr vertikale Balken sichtbar sind, desto stärker sind die Farben.

Helligkeit des Sucherbildes [EVF BRIGHTNESS]
Zum Justieren der Helligkeit des Sucherbildes. Die Balkenanzeige ist in 8 Stufen unterteilt. Je mehr vertikale Balken sichtbar sind, desto heller ist das Sucherbild.

1 Den Regler [PUSH] drücken, um den gewünschten Einstellpunkt zu wählen.

2 Den Regler [PUSH] drehen. Durch Drehen werden mehr oder weniger vertikale Balken angezeigt.

Gesamthaftes Anheben der Helligkeit des LCD-Monitors

Durch Einstellen von [LCD MODE] im Menü auf [BRIGHT] wird der LCD-Monitor aufgehellt.

- Diese Einstellungen haben keinen Einfluß auf das aufgezeichnete Bild.

ENGLISH

Adjusting the LCD Monitor

Selecting [NEXT MENU] on the Menu (either Camera Mode Menu or VCR Mode Menu) and setting [LCD/EVF SET] to [ON] displays the following items. (➜ 122-128)

LCD Brightness [LCD BRIGHTNESS]
To adjust the brightness of the LCD screen. The Bar Indication is divided into 8 steps. The more vertical bars are shown, the brighter is the screen.

LCD Colour Level [LCD COLOUR LEVEL]
To adjust the colour saturation of the LCD screen. The Bar Indication is divided into 8 steps. The more vertical bars are shown, the stronger are the colours.

Finder Brightness [EVF BRIGHTNESS]
To adjust the brightness of the Finder. The Bar Indication is divided into 8 steps. The more vertical bars are shown, the brighter is the screen.

1 Press the [PUSH] Dial to select the item that you want to adjust.

2 Turn the [PUSH] Dial. Turning it increases or decreases the number of vertical bars of the Bar Indication.

Boosting the Brightness of the Whole LCD Monitor

Setting [LCD MODE] on the Menu to [BRIGHT] brightens up the LCD Monitor.

- These adjustments have no influence on the actually recorded picture.

DEUTSCH

Vorsichtshinweise für den Betrieb

Beim Einsatz im Regen und Schnee oder am Strand darauf achten, daß nie Wasser in den Camerarecorder eindringt.

- Das Eindringen von Wasser könnte den Camerarecorder und die Cassette ernsthaft beschädigen. (Solche Schäden sind u. U. nicht reparierbar.)

Den Camerarecorder von magnetisierten Geräten (Fernsehgeräte, TV-Spiele usw.) fernhalten.

- Wenn Sie den Camerarecorder auf oder sehr nahe bei einem Fernsehgerät benutzen, können Bild und Ton durch elektromagnetische Strahlung gestört werden.
- Durch Lautsprecher und Elektromotoren erzeugte starke Magnetfelder können die Aufzeichnungen auf dem Band negativ beeinträchtigen und das Bild stören.
- Elektromagnetische Ausstrahlung von Mikroprozessoren können den Camerarecorder negativ beeinflussen und Bild- und Tonstörungen verursachen.
- Wenn der Camerarecorder durch magnetisierte Geräte negativ beeinflußt wird und nicht korrekt funktioniert, den Camerarecorder ausschalten, den Akku herausnehmen oder den Netzadapter vom Camerarecorder trennen. Anschließend den Akku wieder einsetzen bzw. den Netzadapter anschließen und den Camerarecorder wieder einschalten.

Den Camerarecorder nicht nahe bei einer Radio-Sendestation oder einer Hochspannungsleitung benutzen.

- Beim Aufnehmen nahe bei einer Radio-Sendestation oder einer Hochspannungsleitung können Störungen im aufgezeichneten Bild und Ton auftreten.

Beim Einsatz am Strand oder an ähnlichen Orten darauf achten, daß nicht Sand oder feiner Staub in den Camerarecorder eindringt.

- Sand und Staub können den Camerarecorder und die Cassette ernsthaft beschädigen. (Dieser Punkt ist auch beim Einsetzen und Herausnehmen der Cassette zu beachten.)

Hinweise zum Netzgerät

- Falls die Temperatur des Akkus extrem hoch oder niedrig ist, oder der Akku wegen langer Lagerung stark entladen ist, kann die Lampe [CHARGE] eine Zeitlang blinken, bevor der automatische Ladevorgang beginnt.
  Falls die Lampe [CHARGE] jedoch weiter blinkt, nachdem sich der Akku genügend abgekühlt bzw. erwärmt hat, kann eine Funktionsstörung im Akku oder im Netzgerät vorliegen. Wenden Sie sich in diesem Fall an Ihren Händler.
- Wenn der Akku warm ist, dauert der Ladevorgang länger als gewöhnlich.
- Wird das Netzgerät in der Nähe eines Radios benutzt, kann der Radioempfang gestört werden. Halten Sie das Netzgerät mehr als 1 Meter vom Radio entfernt.
- Das Netzgerät kann während des Betriebs ein surrendes Geräusch abgeben, was jedoch normal ist.

ENGLISH

Cautions for Use

Take care that no water enters the Camera Recorder when using it in the rain and snow or on the beach.

- The Camera Recorder and the cassette could become damaged. (It might not be repairable.)

Keep the Camera Recorder away from magnetized equipment (TVs, TV games, etc.).

- If you use the Camera Recorder on or near a TV, the electromagnetic radiation may cause picture and sound distortion.
- Strong magnetic fields generated by speakers and large motors may damage the recordings on the tape and distort the picture.
- The electromagnetic radiation from micro-computers can adversely influence the Camera Recorder and cause picture and sound distortion.
- If the Camera Recorder is adversely influenced by magnetized equipment and does not work correctly, turn the Camera Recorder off, remove the Battery or disconnect the AC Adapter and insert the Battery or connect the AC Adapter again. Then turn the Camera Recorder on.

Do not use the Camera Recorder near a radio transmitter or high-voltage power line.

- If you record near a radio transmitter or high-voltage power line, the recorded picture and sound may be adversely influenced.

Take care that no sand and fine dust enters the Camera Recorder when using it on a beach or similar places.

- Sand and dust could damage the Camera Recorder and cassette. (Be careful when inserting and removing the cassette.)

Notes about the AC Adapter

- If the temperature of the Battery is extremely high or extremely low, or if the Battery is excessively discharged because of long storage, the [CHARGE] Lamp may flash for some time and charging will then start automatically.
  However, if the [CHARGE] Lamp continues to flash after the Battery has cooled down or warmed up sufficiently, some malfunction may have occurred in the Battery or in the AC Adapter. In this case, consult with your dealer.
- When the Battery is warm, charging takes longer than usual.
- When you use the AC Adapter near a radio, the radio reception may be distorted. Keep the AC Adapter more than 1 meter away from the radio.
- When the AC Adapter is in use, it may emit a whirring sound. However, this is normal.

Darauf achten, daß der Camerarecorder beim Tragen nicht fallengelassen wird.

- Starke Stöße können das Gehäuse des Camerarecorders beschädigen und Betriebsstörungen verursachen.
- Beim Tragen den Camerarecorder am Handgriffriemen oder Schultertrageriemen halten und vorsichtig handhaben.

Insektenspray und andere flüchtige Chemikalien vom Camerarecorder fernhalten.

- Solche Mittel könnten das Gehäuse verformen und Abblättern der Oberflächenbeschichtung verursachen.
- Den Camerarecorder nicht lange Zeit in direktem Kontakt mit Gegenständen aus Gummi oder Kunststoff lassen.

Für die Reinigung nicht Benzin oder Verdünner verwenden.

- Benzin oder Verdünner können das Gehäuse verformen oder Abblättern der Oberflächenbeschichtung verursachen.
- Vor dem Reinigen den Akku herausnehmen oder das Netzkabel aus der Netzsteckdose ziehen.
- Den Camerarecorder mit einem weichen, trockenen Tuch abwischen. Hartnäckige Flecken mit einem leicht mit mildem Reinigungsmittel und Wasser angefeuchteten Tuch behandeln und sofort mit einem trockenen Tuch nachwischen.

Nach beendetem Einsatz immer die Cassette herausnehmen und den Akku entfernen oder das Netzkabel aus der Netzsteckdose ziehen.

- Wenn Sie die Cassette im Camerarecorder lassen, kann sich die Bandwicklung lockern und das Band dadurch beschädigt werden.
- Wenn der Akku sehr lange im Camerarecorder bleibt, könnte er sich übermäßig entladen, so daß ein erneuter Einsatz selbst nach Aufladen unmöglich würde.

■ Optimale Benutzung des Akkus

Besondere Eigenschaften das Akkus

Bei diesem Akku handelt es sich um eine aufladbare Lithium-Ionen-Batterie. Sein Stromerzeugungsprinzip beruht auf einer chemischen Reaktion in seinem Innern. Diese Reaktion wird von der Umgebungstemperatur und der Luftfeuchtigkeit beeinflußt, und bei hoher oder tiefer Temperatur verkürzt sich die Betriebsdauer des Akkus. Beim Einsatz in extrem kalter Umgebung kann daher der Akku u. U. nur eine Betriebsdauer von ca. 5 Minuten liefern. Wenn sich der Akku übermäßig erhitzt, wird er durch eine Schutzfunktion vorübergehend außer Betrieb gesetzt.

Nach beendetem Gebrauch immer den Akku herausnehmen.

Nach dem Gebrauch unbedingt den Akku herausnehmen. (Wenn er eingesetzt bleibt, wird auch bei ausgeschaltetem Camerarecorder ein wenig Strom von ihm entnommen.) Wenn der Akku extrem lange Zeit im Camerarecorder eingesetzt bleibt, könnte er sich übermäßig entladen, so daß ein erneuter Einsatz selbst nach Aufladen unmöglich würde.

Take care not to drop the Camera Recorder when carrying it.

- Strong shocks could damage the body of the Camera Recorder and cause malfunction.
- When carrying, hold the Camera Recorder by the Grip Belt or Shoulder Strap and handle it with care.

Do not spray insecticide or volatile agents on the Camera Recorder.

- Such agents could deform the body and cause the surface coating to peel off.
- Do not leave the Camera Recorder in direct contact with rubber or plastic products for a long time.

Do not use benzine or thinner for cleaning.

- They could deform the body and cause the surface coating to peel off.
- Before cleaning, remove the Battery or unplug the AC Mains Cable from the AC mains socket.
- Wipe the Camera Recorder with a soft, clean cloth. To remove persistent stains, wipe with a cloth moistened with mild detergent diluted with water, and then finish with a dry cloth.

After use, always take out the cassette and remove the Battery or unplug the AC Mains Cable from the AC mains socket.

- If you leave the cassette in the Camera Recorder, the tape can become loosened and damaged.
- If you leave the battery in the Camera Recorder for a long time, the voltage level may drop very low so that the Battery cannot be used any more even after charging.

■Optimum Use of the Battery

Special Characteristics of the Battery

This Battery is a rechargeable lithium-ion battery. Its ability to generate electric energy is based on an internal chemical reaction. This reaction is easily influenced by ambient temperature and humidity, and the useful operation time that the Battery can provide becomes shorter at high and low temperatures. When used in extremely cold surroundings, the Battery may only be able to provide approximately 5 minutes of operation time. If the Battery becomes extremely hot, a protection function is activated and prevents the use of the Battery for some time.

After Use, Always Take out the Battery.

Be sure to remove the Battery from the Camera Recorder. (If it is left in the Camera Recorder, a small amount of electric current is consumed even if the Camera Recorder is turned off.) Leaving the Battery inserted in the Camera Recorder for a very long time could cause it to become excessively discharged, so that it cannot be used any more even after charging.

Entsorgung eines nicht mehr leistungsfähigen Akkus

- Die Lebensdauer des Akkus ist beschränkt.
- Den Akku nicht in ein Feuer werfen, denn er könnte explodieren.

Die Anschlußkontakte des Akkus sauber halten.

Darauf achten, daß die Anschlußkontakte (die beiden runden Öffnungen) nicht durch Staub, Schmutz oder andere Substanzen verstopft werden.
Wenn der Akku aus Versehen fallen gelassen wird, überprüfen, daß der Akku selbst und die Kontakte nicht verformt sind.
Das Einsetzen eines verformten Akkus in den Camerarecorder oder das Aufschieben auf den Netzadapter könnte den Camerarecorder oder den Netzadapter beschädigen.

■ Kondensationsbildung

Feststellen, ob sich im Innern Kondensation gebildet hat, und Abhilfe gegen Kondensation

Wenn nach Einschalten des Camerarecorders die Kondensationsanzeige blinkt, hat sich in seinem Innern Kondensation gebildet. In diesem Falle schaltet sich der Camerarecorder nach einigen Sekunden automatisch aus.
Auf folgende Weise Abhilfe schaffen:

1. **Die Cassette herausnehmen.**
   Keine anderen Funktionen können ausgelöst werden. Je nachdem, wieviel Kondensation sich gebildet hat, kann die Cassette u. U. nicht herausgenommen werden. In diesem Falle ca. 2 - 3 Stunden warten, bevor Sie die Cassette herausnehmen.

2. **Das Cassettenfach geöffnet lassen und ca. 2 - 3 Stunden warten.**
   Die nötige Wartezeit hängt davon ab, wieviel Kondensation sich gebildet hat, sowie auch von der Umgebungstemperatur.

3. **Nach ca. 2 - 3 Stunden den Camerarecorder einschalten und prüfen, ob die Kondensationsanzeige nicht mehr sichtbar ist.**
   Auch wenn die Kondensationsanzeige nicht mehr sichtbar ist, empfiehlt es sich, zur Sicherheit eine weitere Stunde zu warten.

Auf Kondensation achten, auch wenn die Kondensationsanzeige nicht erscheint.

- Da sich Kondensation allmählich bildet, kann es von der Kondensationsbildung 10 - 15 Minuten dauern, bevor die Kondensationsanzeige erscheint.
- An einem extrem kalten Ort könnte die Kondensation gefrieren. In einem solchen Fall dauert es zusätzliche 2 - 3 Stunden, da das Eis zuerst schmelzen muß, bevor sich die Kondensation auflösen kann.

Abhilfe für angelaufene Objektivlinse

Den Schalter [POWER] auf [OFF] stellen und den Camerarecorder ca. 1 Stunde lang in diesem Zustand lassen. Sobald die Temperatur der Objektivlinse auf die Umgebungstemperatur angestiegen ist, wird auch die Linse wieder klar.

Discarding a Battery That Has Become Unusable

- The usable life of the Battery is limited.
- Do not throw the Battery in a fire because it could explode.

Keep the Battery’s Terminals Clean.

Be careful that the terminals (the two small round openings) do not get plugged up with dust, dirt or other substances.
If you accidentally drop the Battery, confirm that the Battery itself and the terminals are not deformed.
Inserting a deformed Battery in the Camera Recorder or attaching it to the AC Adaptor could damage the Camera Recorder or the AC Adapter.

■ Condensation

Determining Whether Condensation Has Formed Inside and Remedy for Condensation

If the Condensation Indication flashes after you turn on the Camera Recorder, condensation has formed inside the Camera Recorder. In this case, the Camera Recorder automatically switches off after a few seconds.
Remedy as follows:

1. **Take out the cassette.**
   All other functions do not work. Depending on the amount of condensation, it may not be possible to take out the cassette. In this case, wait 2 - 3 hours before taking out the cassette.

2. **Leave the Cassette Compartment open and wait for 2 - 3 hours.**
   The required time depends on the amount of condensation and the ambient temperature.

3. **After 2 - 3 hours, turn the Camera Recorder on and check if the Condensation Indication is not displayed.**
   Even if the Condensation Indication is no longer displayed, wait 1 more hour for added safety before using the Camera Recorder again.

Pay Attention to Condensation Even Before the Condensation Indication Appears.

- As condensation forms gradually, the Condensation Indication may not appear for the first 10 - 15 minutes after condensation has formed inside.
- In an extremely cold place, the condensation could freeze and turn into frost. In such a case, it takes an additional 2 - 3 hours for the frost to first melt into condensation and then to be dissolved.

Remedy for a Fogged-up Lens

Set the [POWER] Switch to [OFF] and leave the Camera Recorder in this condition for about 1 hour. When the lens has reached about the same temperature as its surroundings, it automatically clears up.

■ Verschmutzte Köpfe und Abhilfe

Wenn die Köpfe (welche mit dem Band in Berührung kommen) verschmutzt sind, treten bei der Wiedergabe mosaikartige Bildstörungen auf, oder der Bildschirm wird ganzflächig schwarz. Wenn die Köpfe sehr stark verschmutzt sind, verschlechtert sich die Aufnahmeleistung noch weiter, und im Extremfall ist kein Aufnehmen mehr möglich.

Ursache von verschmutzten Köpfen

- Stark staubhaltige Luft
- Hohe Umgebungstemperatur und Luftfeuchtigkeit
- Beschädigtes Band
- Extrem lange Verwendung

Einsatz der Kopfreinigungs-Cassette im Mini-DV- Format (nicht mitgeliefert)

1. **Die Reinigungscassette auf gleiche Weise in den Camerarecorder einsetzen, wie eine gewöhnliche Videocassette.**
2. **Die Wiedergabe-Taste [▶] drücken und nach ca. 20 Sekunden die Stopp-Taste [■] drücken. (Das Band nicht zurückspulen.)**
3. **Die Reinigungscassette herausnehmen. Eine Videocassette einsetzen, eine Aufnahme machen und diese anschließend wiedergeben und das Bild prüfen.**
4. **Falls das Bild immer noch nicht sauber ist, die obigen Schritte 1 - 3 wiederholen. (Die Reinigungscassette jedoch nicht öfter als dreimal nacheinander benutzen.)**

Hinweise:

- Das Band in der Reinigungscassette nicht nach jedem Einsatz zurückspulen. Erst zurückspulen, wenn das Bandende erreicht ist, und es dann erneut auf gleiche Weise verwenden.
- Wenn die Videoköpfe sehr bald nach der Reinigung wieder verschmutzt werden, könnte die Ursache in einem beschädigten Band liegen. In diesem Fall die betreffende Cassette nicht mehr verwenden.
- Zu häufiges Reinigen mit der Reinigungscassette vermeiden. (Zu häufiges Reinigen kann u. U. übermäßige Abnutzung der Videoköpfe verursachen, und dabei ist das Wiedergabebild auch nach erfolgter Reinigung nicht sauber.)
- Falls sich die Verschmutzung der Videoköpfe durch den Einsatz der Reinigungscassette nicht beheben läßt, muß der Camerarecorder in einer Service-Werkstatt gereinigt werden. Wenden Sie sich dazu bitte an Ihren Fachhändler.
- Diese Videokopf-Reinigungscassette im Mini DV-Format ist von Service-Centern erhältlich.

Periodische Inspektion

Um optimale Bildqualität zu gewährleisten, empfehlen wir das Auswechseln von abgenutzten Teilen wie den Köpfen nach ca. 1000 Betriebsstunden. (Dies ist jedoch stark von den Einsatzbedingungen wie Temperatur, Luftfeuchtigkeit und Staub abhängig.)

■ Video Head Clogging and Remedy

When the video heads (which contact the tape) are dirty, the playback picture contains mosaic-like patterns or the whole screen becomes black. If they become even more dirty, the recording performance deteriorates and in the worst case, recording may not be possible at all.

Causes of Dirty Video Heads

- A lot of dust in the air
- High-temperature and high-humidity environment
- Damaged tape
- Long-time use

Using the Mini-DV Format Digital Video Head Cleaner (not supplied)

1. **Insert the Head Cleaner into the Camera Recorder in the same way as a video cassette.**
2. **Press the Play Button [▶], and after approximately 20 seconds press the Stop Button [■]. (Do not rewind the tape.)**
3. **Take out the Head Cleaner. Insert a video cassette, perform recording and then play it back to check the picture.**
4. **If the picture is still not clear, repeat above operation steps 1 - 3. (Do not use the Head Cleaner more than 3 times in succession.)**

Notes:

- Do not rewind the tape in the Head Cleaner after every use. Rewind it only after the tape has reached its end, and then use it again in the same way from the beginning.
- If the video heads again become clogged with dirt soon after cleaning, this might be caused by a damaged tape. In this case, stop using that cassette immediately.
- Be careful not to clean the video heads too much. (Too much cleaning could cause excessive wear to the video heads. If the video heads get worn, the picture is not played back clearly even after cleaning.)
- If using the Head Cleaner does not clear the video head clogging, the Camera Recorder requires cleaning or repairing by a service centre. Please consult with your dealer.
- This Video Head Cleaner is available from service centres.

Periodic Inspection

To ensure optimum picture quality, we recommend that you have worn-out parts such as video heads replaced after approximately 1000 hours of use. (However, this depends considerably on the conditions of use such as temperature, humidity and dust.)

■ Vorsichtshinweise für die Aufbewahrung

Vor dem Aufbewahren des Camerarecorders die Cassette herausnehmen und den Akku entfernen.

Alle Geräte an einem trockenen Ort aufbewahren, wo die Temperatur relativ konstant bleibt.
(Der empfohlene Temperaturbereich ist 15°C - 25°C und der Luftfeuchtigkeitsbereich (rel.) ist 40% - 60%.)

Camerarecorder

- In ein weiches Tuch einhüllen, damit kein Staub eindringen kann.

Akku

- Extrem niedrige oder hohe Temperatur verkürzt die Betriebsdauer des Akkus.
- Beim Aufbewahren an Orten mit ölhaltigem Rauch und viel Staub können die Anschlußkontakte rosten, und dies kann Betriebsstörungen verursachen.
- **Darauf achten, daß keine Metallgegenstände (wie Halsschmuck, Haarnadeln und Schlüssel) die Anschlußkontakte berühren. Durch Kurzschluß könnte starke Hitzeentwicklung entstehen, und beim Berühren zu Brandwunden führen.**
- Den Akku in entladenem Zustand aufbewahren. Bei extrem langem Aufbewahren des Akkus empfehlen wir, den Akku mindestens einmal pro Jahr aufzuladen und die Ladekapazität vollständig aufzubrauchen, bevor Sie ihn in entladenem Zustand erneut aufbewahren.

Cassette

- Vor dem Aufbewahren das Band immer vollständig zurückspulen. Wenn das Band teilweise vorgespult länger als 6 Monate aufbewahrt wird, könnten sich (je nach Aufbewahrungsbedingungen) die Bandwicklungen lockern. Daher unbedingt vollständig zurückspulen.
- Die Cassette zum Aufbewahren immer in ihre Box einsetzen.
  Staub, direkte Sonnenbestrahlung (ultraviolette Strahlen) und hohe Luftfeuchtigkeit können das Band beschädigen. Staub kann harte Mineralpartikel enthalten, und staubhaltige Cassetten können die Köpfe und andere Präzisionsteile im Camerarecorder beschädigen. Machen Sie es sich zur Regel, die Cassette immer in ihre Box einzusetzen.
- Einmal pro Halbjahr das Band vollständig vor- und anschließend wieder zurückzuspulen. Wenn es länger als ein Jahr ohne Vor- und Zurückspulen aufbewahrt wird, kann es sich durch Ausdehnen und Zusammenziehen aufgrund von Änderungen in der Temperatur und Luftfeuchtigkeit verformen. Zudem könnte es zu Zusammenkleben der Bandwicklungen kommen.
- Die Cassette nicht nahe bei stark magnetisierten Gegenständen oder Geräten aufbewahren.
- Die Bandoberfläche ist mit mikroskopischen Magnetpartikeln beschichtet, in welchen die Signale aufgezeichnet werden. Die magnetische Kraft von Gegenständen wie magnetische Halsketten oder Spielzeug kann weit stärker sein, als man sich vorstellt, und dies kann zu Löschen des aufgezeichneten Inhalts und Bild- und Tonstörungen führen.

■ Precautions for Storage

Before Storing the Camera Recorder, Take out the Cassette and Remove the Battery.

Store all equipment in a dry place where the temperature remains relatively constant.
(Recommended temperature is 15°C - 25°C and recommended relative humidity is 40% - 60%.)

Camera Recorder

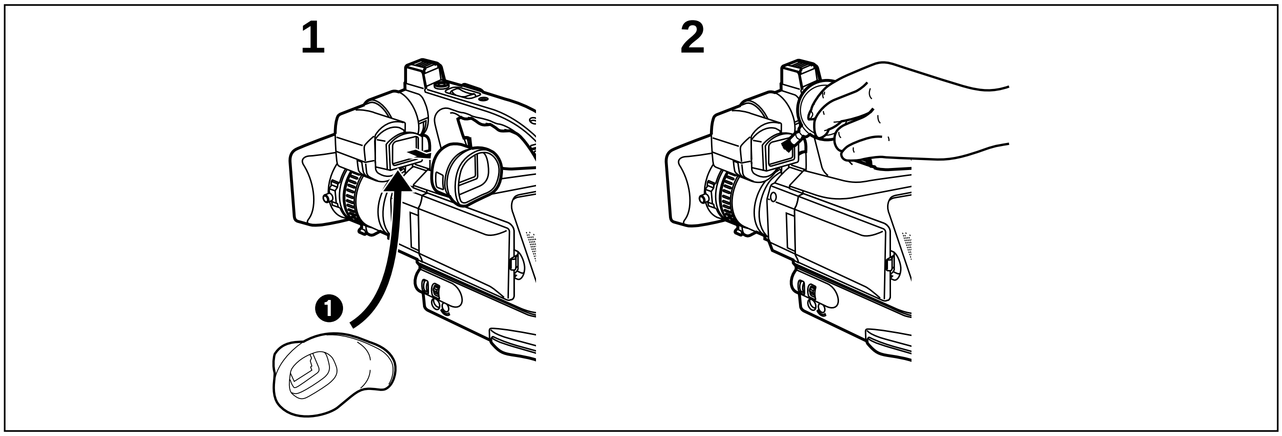
- Wrap it with a soft cloth to prevent dust from entering.

Battery

- Extremely low or high temperature shortens the Battery life.
- Storing it in places with oily smoke and a lot of dust could cause the terminals to get rusty, and this can result in malfunction.
- **Do not allow metal objects (such as necklaces and hair pins) to touch the battery terminals. Short-circuiting may occur and generate heat, and touching it in this condition could inflict serious burns.**
- Store the Battery in discharged condition. If you store the Battery for a long time, we recommend that you charge it once a year and completely use up the charge before storing it again in discharged condition.

Cassette

- Rewind the tape to its beginning before storing.
  Leaving the cassette with the tape stopped halfway for more than 6 months (depending on the storing condition) loosens the tape. Be sure to rewind it to the beginning.
- Put the cassette in its case to store it.
  Dust, direct sunlight (ultraviolet rays) and humidity could damage the tape. Dust contains hard mineral particles and cassettes with dust damage the video heads and other parts of the Camera Recorder. Make it a habit to always put the cassette back into its case.
- Completely wind the tape forward and then rewind it once every half year. Leaving the cassette for more than a year without winding/rewinding it may deform the cassette because of stretching and shrinking of the tape due to changes in temperature and humidity. Also, the tape may stick together.
- Do not place the cassette near strongly magnetized objects or equipment.
- The tape surface is coated with microscopic magnetic particles and they record signals. Such objects as magnetic necklaces and toys have stronger magnetic force than commonly thought, and this could erase the recorded contents and cause noise in picture and sound.



DEUTSCH

■ Große Augenmuschel (mitgeliefert)

Die Standard-Augenmuschel kann gegen eine große Augenmuschel ❶ ausgewechselt werden.

■ LCD-Monitor/ Sucher/ Sonnenblende

LCD-Monitor

- An Orten mit hohem Temperaturwechsel kann Kondensation auf dem LCD-Monitor-Bildschirm auftreten. Wischen Sie ihn mit einem weichen, trockenen Tuch ab.
- Wenn der Camerarecorder beim Einschalten extrem kalt ist, kann das Bild auf dem LCD-Monitor etwas dunkler sein, als normalerweise. Beim Anstieg der Temperatur erreicht jedoch auch der LCD-Monitor wieder seine normale Helligkeit.
- Der LCD-Monitor wird nach extrem hohen Qualitätskriterien gefertigt. Das Ergebnis sind 99,99 % aktive Pixel, und nur 0,01 % der Pixel bleiben inaktiv oder dauernd beleuchtet. Dies ist jedoch keine Funktionsstörung und hat keinen Einfluß auf das aufgezeichnete Bild.

Sucher

- Der LCD-Sucher wird nach extrem hohen Qualitätskriterien gefertigt. Das Ergebnis sind 99,99 % aktive Pixel, und nur 0,01 % der Pixel bleiben inaktiv oder dauernd beleuchtet. Dies ist jedoch keine Funktionsstörung und hat keinen Einfluß auf das aufgezeichnete Bild.
- Den Sucher oder das Objektiv nicht direkter Sonnenbestrahlung ausgesetzt lassen, denn dies könnte Teile im Innern ernsthaft beschädigen.

■ Reinigen des Suchers

Wenn Staub in den Sucher eingedrungen ist, diesen wie folgt reinigen:

1. **Die Okular abnehmen.**
2. **Den Staub mit einem Blasepinsel (nicht mitgeliefert) entfernen.**
3. **Die Okular wieder aufsetzen.**

■ Wiedergabe-Wiederholung

- Wenn Sie die Wiedergabe-Taste [▶] länger als 5 Sekunden gedrückt halten, schaltet der Camerarecorder auf Wiedergabe-Wiederholung um, und die Anzeige [R▷] erscheint. Zum Ausschalten des Modus Wiedergabe-Wiederholung den Schalter [POWER] auf [OFF] stellen.

ENGLISH

■ Large-sized Eyepiece (supplied)

It is possible to replace the standard eyepiece with a large-sized eyepiece ❶.

■ LCD Monitor/ Finder/ Lens Hood

LCD Monitor

- In places where big changes in temperature occur, condensation may form on the LCD Monitor. Wipe it with a soft, dry cloth.
- When the Camera Recorder is very cold when it is turned on, the picture on the LCD Monitor is initially a little darker than normally. However, as the internal temperature rises, the LCD Monitor regains its normal brightness.
- Extremely high precision technology is employed in producing the LCD Monitor. The result is more than 99.99% effective pixels with a mere 0.01% of the pixels inactive or always lit. However, this is not a malfunction and does not affect the recorded picture.

Finder

- Extremely high precision technology is employed in producing the Finder screen. The result is more than 99.99% active pixels, with a mere 0.01% of the pixels inactive or always lit. However, this is not a malfunction and does not affect the recorded picture.
- Do not leave the Finder or the Lens aimed at the sun. This could seriously damage internal parts.

■ Cleaning the Finder

If dust has entered the Finder, clean it in the following way:

1. **Remove the Eyepiece.**
2. **Remove the dust with a blower brush (not supplied).**
3. **Reattach the Eyepiece.**

■ Repeat Playback

- If you keep the Playback Button [▶] pressed for more than 5 seconds, the Camera Recorder switches over to the Repeat Playback Mode and the [R▷] Indication appears. (To cancel the Repeat Playback Mode, set the [POWER] Switch to [OFF].)

Glossar

■ Digital-Video-System

Beim Digital-Video-System werden Bild und Ton in Digitalsignale umgesetzt und anschließend auf das Band aufgezeichnet.
Dieses rein digitale Aufzeichnungsverfahren ermöglicht Aufnahme und Wiedergabe mit einem absoluten Minimum an Qualitätsverlust.
Zusätzlich werden verschiedene Daten wie Timecode, Datum und Uhrzeit automatisch als digitale Signale mit aufgezeichnet.

Qualitätsmerkmale

- Überlegene Bildauflösung
- Hervorragender Signal-/Störabstand
- Stabiles Bild
- Minimierter Qualitätsverlust beim Kopieren
- Minimierter Farbversatz
- Digitaler PCM-Ton
- Kein Bildqualitätsverlust im LP-Modus
- 6,35 mm Bandbreite
- Kompakte Cassette und lange Aufnahmedauer
- Minimierter Qualitätsverlust beim Editieren
- Timecode-gesteuertes Editieren

Kompatibilität mit S-VHS- oder VHS-Cassetten

Da dieser Camerarecorder ein rein digitales Verfahren für die Aufzeichnung von Bild und Ton verwendet, besteht keine Kompatibilität mit dem konventionellen S-VHS- und VHS-System, welche analoge Aufzeichnungsverfahren verwenden.
Zudem besteht ein sehr großer Unterschied in der Größe und Form der Cassetten.

Kompatibilität mit Ausgangssignalen

Da die durch die Video- und Audio-Ausgangsbuchsen ausgegebenen Bild- und Tonsignale analog sind — also gleich wie die Signale in den konventionellen Videosystemen —, können Sie den Camerarecorder für die Wiedergabe an einen S-VHS- oder VHS-Videorecorder oder auch direkt an ein Fernsehgerät anschließen.

PCM-Digital-Ton

Für die Aufzeichnung des Tons bietet dieser Camerarecorder die Wahl zwischen zwei PCM-Tonaufzeichnungs-Modi:

- 16 Bit, 48 kHz, 2 Kanäle
- 12 Bit, 32 kHz, 4 Kanäle

Der Modus „16 Bit, 48 kHz, 2 Kanäle“ bietet eine überlegene Stereo-Tonqualität.
Der Modus „12 Bit, 32 kHz, 4 Kanäle“ bietet die Möglichkeit, den Originalton in Stereo auf 2 Kanälen und Nachvertonung in Stereo auf zwei weiteren Kanälen aufzuzeichnen.

Zusatzcode

Das digitale Aufzeichnungsverfahren ermöglicht auch das Aufzeichnen von Zusatzcode, der verschiedene Daten enthält.
Dieser Camerarecorder zeichnet die folgenden Daten im Zusatzcode mit auf:

- Timecode
- Aufnahme-Datum und -Uhrzeit
- Indexsignale für schnelles Auffinden von Standbildern, die im Photoshot-Modus aufgezeichnet wurden.
- Indexsignale für schnelles Auffinden des Anfangs von Szenen, die mit Indexsignal markiert sind.

Glossary

■ Digital Video System

In the digital video system, picture and sound are converted into digital signals and recorded onto the tape.
This completely digital recording allows recording and playback of picture and sound with minimum quality deterioration.
In addition, such data as Time Code, Date and Time are also automatically recorded as digital signals.

Features

- Superior picture resolution
- Excellent signal-to-noise ratio
- Stable pictures
- Minimised quality deterioration in dubbing
- Minimised cross colour distortion
- PCM digital sound
- No picture deterioration in LP Mode
- 6.35 mm-wide tape
- Compact cassette with long recording time
- Minimised quality deterioration in editing
- Time Code editing

Compatibility with S-VHS or VHS Cassettes

As this Camera Recorder uses a digital method for recording picture and sound, there is no compatibility with conventional S-VHS or VHS video equipment using analog recording methods.
In addition, the size and shape of the cassette are completely different.

Compatibility with Output Signals

As the video and audio signals output from the audio and video output sockets are analog — the same as in conventional video systems — you can connect this Camera Recorder to your S-VHS or VHS VCR or TV for playback.

PCM Digital Sound

For recording of the sound, this Camera Recorder offers the choice between two different PCM Audio Recording Modes.

- 16 bit, 48 kHz, 2 channels
- 12 bit, 32 kHz, 4 channels

The “16 bit, 48 kHz, 2 channels” Mode offers superior recording sound quality.
The “12 bit, 32 kHz, 4 channels” Mode lets you record the original sound in stereo on two channels and the dubbed sound in stereo on two separate channels.

Sub Code

The digital recording system offers the added capability of recording sub code containing various data.
The following data is recorded as sub code on this Camera Recorder:

- Time code
- Recording date and time
- Index signals for locating still images recorded in the Photoshot Mode
- Index signals for locating the beginning of scenes marked with index signal

DEUTSCH

■ Scharfeinstellung

Wenn Sie einen Gegenstand unter der Lupe betrachten und diese dem Gegenstand nähern oder davon entfernen, erreichen Sie einen Punkt, wo der Gegenstand deutlich sichtbar wird. Das Einstellen des Objektivs, um den Bildgegenstand am klarsten und schärfsten sichtbar zu machen, wird als Scharfeinstellung bezeichnet.

Menschenauge

Auch das Menschenauge hat eine Linse, und wenn wir Gegenstände in unterschiedlicher Entfernung betrachten, verändert sich die Form der Linse automatisch und sofort, damit wir diese Gegenstände immer scharf und deutlich sehen.

Camerarecorder

Der Bildgegenstand wird durch die Objektivlinse auf den Bildwandler im Innern des Camerarecorders gespiegelt und durch diesen für die Aufzeichnung auf Magnetband in ein elektrisches Signal (Video-Signal) umgewandelt. Die Scharfeinstellung erfolgt entweder automatisch oder manuell, indem die Fokussierlinse hinter dem Objektiv verschoben wird.

Automatische Scharfeinstellung (Auto-Focus)

Das Auto-Focus-System in diesem Camerarecorder bewegt die Fokussierlinse vorwärts oder rückwärts bis das Bild scharf eingestellt ist.
Das Auto-Focus-System hat die folgenden Eigenschaften:

- Es stellt so scharf ein, daß die vertikalen Konturen des Bildgegenstandes optimal klar und sauber sind.
- Es stellt einen Bildgegenstand mit starkem Kontrast scharf ein.
- Es stellt den Bildgegenstand in der Bildmitte scharf ein.
  Anders als das Menschenauge ist das Scharfeinstellungs-System des Camerarecorders jedoch nicht in der Lage, die Scharfeinstellung ohne jegliche Verzögerung von einem entfernten auf einen nahen Bildgegenstand und umgekehrt zu ändern.

ENGLISH

■ Focus

If you look at an object through a magnifying glass and move it closer or further away from your eye, you will reach a point where the object becomes clearly visible. Being focused or in focus means that the subject can be seen with optimum clarity and sharpness.

Human Eyes

Human eyes have lenses as well, and when we look at objects at different distances, the shape of these lenses changes automatically so that we can always see these objects clearly.

Camera Recorder

The image of the subject enters the Camera Recorder through the lens and is converted into an electric signal (video signal) for recording onto magnetic tape. The focus is adjusted either manually or automatically by moving a focusing lens.

Auto Focus Adjustment

The Auto Focus System automatically moves the internal focusing lens forward or backward and adjusts the focus so that the subject can be seen clearly.
The Auto Focus Adjustment has the following characteristics:

- It adjusts until the vertical contours of the subject are as sharp and clean as possible.
- It adjusts the focus on the subjects with strong contrast.
- It adjusts the focus on the subject in the centre of the LCD Monitor or Finder.
  Unlike human eyes, the lens of the Camera Recorder cannot instantaneously change the focus from a nearby to a distant subject and vice versa.

Für die folgenden Bildgegenstände und Aufnahmesituationen kann das Auto-Focus-System nicht präzise Scharfeinstellungen liefern.
In diesen Fällen sollte die Scharfeinstellung daher manuell vorgenommen werden. (➜ 40)

❶ **Bildgegenstände, die zum Teil nahe beim Camerarecorder und zum Teil weit davon entfernt sind.**
Da die automatische Scharfeinstellung auf den zentralen Bildausschnitt vorgenommen wird, ist es oft unmöglich, sowohl auf den nahen Teil des Bildgegenstandes als auch auf den entfernten Teil scharf einzustellen.
Wenn Sie zum Beispiel eine Person vor einem entfernten Berg aufnehmen möchten, kann nicht gleichzeitig auf beide scharf eingestellt werden.

❷ **Bildgegenstände hinter verschmutzten oder nassen Fenstern**
Da die automatische Scharfeinstellung auf das verschmutzte Glas vorgenommen wird, bleibt der Bildgegenstand hinter dem Glas unscharf. Beim Aufnehmen eines Bildgegenstandes auf der anderen Straßenseite wird die Scharfeinstellung u. U. wiederholt auf dazwischen vorbeifahrende Autos vorgenommen.

❸ **Bildgegenstände in dunkler Umgebung**
Da die durch das Objektiv empfangene Lichtinformation sehr gering ist, kann der Camerarecorder nicht präzise scharf einstellen.

❹ **Bildgegenstände, die von glänzenden Oberflächen oder viel Lichtreflexion umgeben sind.**
Da der Camerarecorder bevorzugt auf Gegenstände mit glänzenden Oberflächen oder viel Lichtreflexion scharf einstellt, ist der Bildgegenstand u. U. nicht scharf.
Beim Aufnehmen von Strandszenen, Abendszenen, Feuerwerk und Situationen unter besonderen Beleuchtungstypen bleibt der Bildgegenstand u. U. unscharf.

❺ **Bildgegenstände mit schneller Bewegung**
Da die interne Fokussierlinse mechanisch bewegt wird, kann sie den sich schnell bewegenden Objekten nicht ohne Verzögerung folgen. Bei Motiven, wie Kindern, die hin und her laufen, werden diese vorübergehend unscharf.

❻ **Bildgegenstände mit schwachem Kontrast**
Da der Camerarecorder auf die vertikalen Bildkonturen scharf einstellt, kann es bei Motiven mit wenig Kontrast, wie etwa bei einer weißen Mauer, zur Unschärfe kommen.

For the following subjects and recording situations, the Auto Focus System cannot provide precise adjustment.
Use the Manual Focus Mode instead. (➜ 40)

❶ **Recording subjects with a part of it near the Camera Recorder and another part far away from it**
As the Auto Focus adjusts on the centre part of the image, it is often impossible to bring the nearby and distant parts of the subject into focus.
When you want to record a person with a distant mountain in the back, it is not possible to focus on both.

❷ **Recording subjects behind glass covered with dirt or dust**
As the focus is adjusted on the dirty glass, the subject behind the glass is out of focus. When recording a subject across a street on which cars are running, the focus may be adjusted on the cars.

❸ **Recording subjects in dark surroundings**
As the amount of light information entering through the lens is greatly reduced, the Camera Recorder cannot adjust the focus precisely.

❹ **Recording subjects surrounded by objects with shiny surfaces or much light reflection**
As the Camera Recorder adjusts the focus on objects with shiny surfaces or much light reflection, the subject may go out of focus.
Therefore, when recording at a lake or the sea, evening scenes, fireworks, or under special types of lighting, the subject may be out of focus.

❺ **Recording fast-moving subjects**
As the internal focusing lens is moved mechanically, it cannot follow fast-moving subjects without delay. Therefore, subjects like children running back and forth may temporarily go out of focus.

❻ **Subjects with weak contrast**
As the Camera Recorder adjusts the focus based on vertical contours in the picture, subjects with little contrast such as a white wall may be out of focus.

■ Weißabgleich

Während mit dem Camerarecorder wohl überwiegend im Freien unter Sonnenlicht aufgenommen wird, findet man immer wieder interessante Motive, die durch die verschiedensten Arten von Kunstlicht beleuchtet sind, sowohl drinnen wie draußen. Jede dieser Lichtquelle färbt jedoch den Bildgegenstand unterschiedlich ein.

Menschenauge

Unsere Augen und unser Gehirn können sich ohne jegliche Schwierigkeiten auf verschiedenste Arten von Beleuchtung einstellen, und wir sehen daher die Farbe eines Gegenstandes sogar unter verschiedensten Lichtquellen immer gleich.

Camerarecorder

Camerarecorder hingegen besitzen diese hervorragende Anpassungsfähigkeit nicht. Würde daher ein Bildgegenstand ohne Farbkompensierung aufgenommen, würde die Beleuchtung seine Farbe beeinflußen, und die Bilder hätten einen Rot- oder Blaustich. Um dies zu verhindern und immer natürliche Farben zu gewährleisten, muß am Camerarecorder eine als „Weißabgleich“ bezeichnete Einstellung — entweder automatisch oder manuell — durchgeführt werden.

Weißabgleich

Der Camerarecorder stellt die Farbe der Beleuchtung fest und kompensiert diese so, daß Weiß rein weiß bleibt. Weiß ist die Grundfarbe des Farbspektrums, und wenn daher Weiß korrekt wiedergegeben wird, sind auch alle anderen Farben korrekt und natürlich.

Automatischer Weißabgleich

In diesem Camerarecorder sind die optimalen Weißabgleich-Einstellungen für einige allgemein übliche Beleuchtungssituationen gespeichert. Er stellt die Farbe des durch das Objektiv und durch das Weißabgleichsensor-Fenster (➜ 12) einfallenden Lichtes fest und wählt die entsprechende Farbeneinstellung aus den gespeicherten Einstellungen aus. Diese Funktion wird als „automatischer Weißabgleich“ bezeichnet.
Da jedoch nur die optimalen Einstellungen für eine beschränkte Anzahl an Lichtquellen gespeichert sind, funktioniert der automatische Weißabgleich nicht mit ausreichender Präzision unter anderen Bedingungen.

Der Bereich an Beleuchtungstypen, unter denen die automatische Weißabgleich-Funktion präzise Resultate liefern kann, ist auf Seite (➜ 156) gezeigt. Beim Aufnehmen unter Beleuchtungstypen außerhalb dieses Bereichs funktioniert der automatische Weißabgleich nicht präzise, und die Bilder können einen Rot- oder Blaustich haben. Das gleiche gilt auch beim Aufnehmen einer Szene unter mehr als einem Beleuchtungstyp, selbst wenn diese Beleuchtungstypen innerhalb dieses Bereichs liegen.

■ White Balance Adjustment

While most recording with a Camera Recorder is probably done outdoors under sunlight, video recording is also done very often under artificial light sources, both indoors and outdoors. However, each of these light sources gives the subject slightly different colours.

Human Eyes

Human eyes can easily adjust to different kinds of lighting and see an object with the same colours even under different lighting.

Camera Recorder

Unlike human eyes, the Camera Recorder does not have the innate ability to adapt to changes in lighting, and they influence the colours being recorded. Therefore, depending on the light source, the picture would be recorded with a bluish or reddish tint. To minimise the influence of the lighting on the colours of the subject, an adjustment called White Balance Adjustment is necessary.

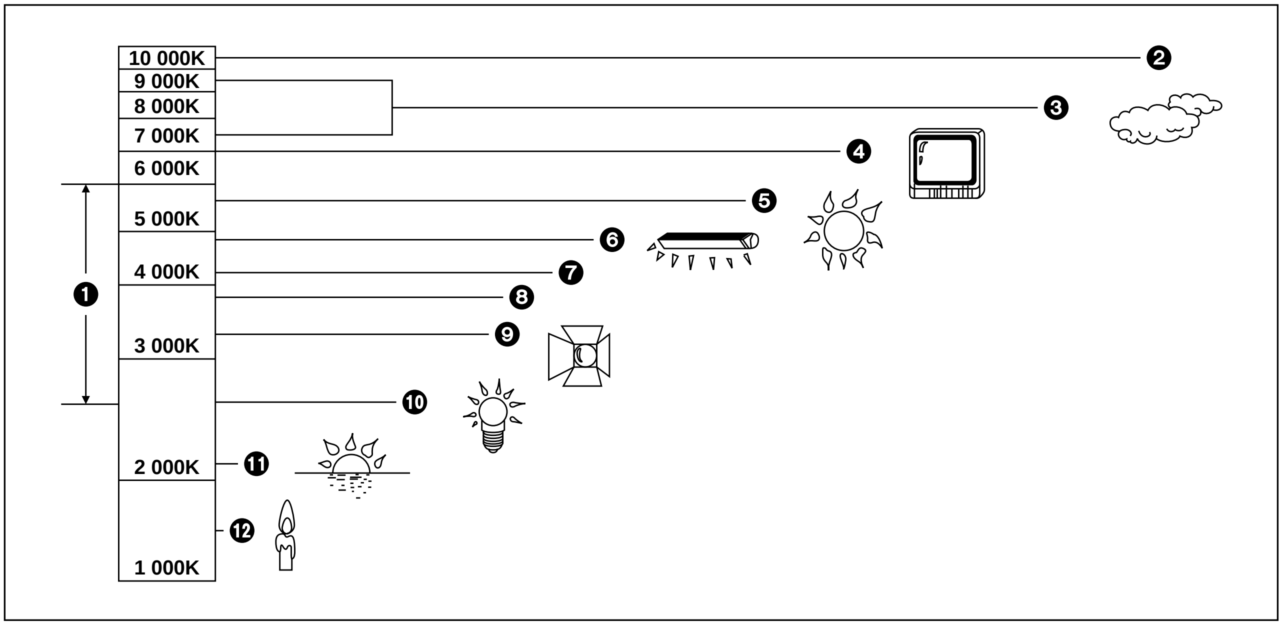
White Balance Adjustment

The White Balance Adjustment determines the colour of the light and adjusts the colours so that white remains pure white. As white is the basic colour of the entire colour spectrum, if white is reproduced correctly, the other colours are correct and natural, too.

Auto White Balance Adjustment

This Camera Recorder stores the optimum settings for several common light sources in memory. The Camera Recorder judges the recording situation by determining the tint of the light received through the lens and by the White Balance Sensor (➜ 12), and it selects the setting for the most similar tint. This function is called Auto White Balance Adjustment.
However, as the white balance settings for only a few light sources are stored in memory, the white balance is not correctly adjusted for other lighting conditions.

For the range of different types of lighting within which the Auto White Balance Function can provide precise adjustment, refer to the chart (➜ 156). For recording under lighting conditions outside this range, the Auto White Balance Function does not work correctly, and the recorded picture has a red or blue cast. However, the same also applies, if the subject is lit by more than one light source, even if these light sources are within this range.



DEUTSCH

■ Farbtemperatur

Jede Lichtquelle hat ihre eigene Farbtemperatur, und diese wird in Kelvin (K) gemessen. Je höher der Kelvinwert ist, desto bläulicher ist das Licht, und je niedriger er ist, desto rötlicher ist das Licht. Der Kelvinwert steht in direkter Beziehung zur Farbe des Lichtes, jedoch nicht direkt zu seiner Helligkeit.
Der Bereich ❶ in obiger Übersicht zeigt die Lichtquellen, unter denen die automatische Weißabgleich-Funktion präzise funktioniert und Bilder mit natürlichen Farben gewährleisten kann. Für Lichtquellen außerhalb dieses Bereichs sollte der Weißabgleich manuell vorgenommen werden (➜ 84). Zudem ist eventuell für verstärkte Beleuchtung zu sorgen.

❶ Regelbereich der Weißabgleich-Automatik

❷ Blauer Himmel

❸ Stark bewölkter Himmel (Regen)

❹ Fernsehbildschirm

❺ Sonnenlicht

❻ Leuchtstofflampe, weißgefärbt

❼ 2 Stunden nach Sonnenaufgang oder vor Sonnenuntergang

❽ 1 Stunde nach Sonnenaufgang oder vor Sonnenuntergang

❾ Halogenlampe

❿ Glühlampe, weißgefärbt

⓫ Sonnenaufgang oder Sonnenuntergang

⓬ Kerzenlicht

ENGLISH

■ Colour Temperature

Every light source has its own colour temperature measured in Kelvin (K). The higher the Kelvin value, the more bluish the light; the lower the value, the more reddish the light. The Kelvin value is related to the tint of the light, but not directly to its brightness.
The range ❶ indicated in the illustration above shows the light sources for which this Camera Recorder can provide precise white balance adjustment and, therefore, natural colours in the recorded pictures, when using the Full Auto Mode. For light sources outside this range, adjust the white balance manually (➜ 84). Also, additional lighting may be necessary.

❶ Control range of this Camera Recorder's Auto White Balance Adjustment Mode

❷ Blue sky

❸ Cloudy sky (Rain)

❹ TV screen

❺ Sunlight

❻ White fluorescent lamp

❼ 2 hours after sunrise or before sunset

❽ 1 hour after sunrise or before sunset

❾ Halogen light bulb

❿ Incandescent light bulb

⓫ Sunrise or sunset

⓬ Candlelight

■ Timecode

Beim Timecode handelt es sich um Daten, welche die Zeit in Stunden, Minuten, Sekunden und Vollbildern (25 Vollbilder pro Sekunde) angeben und automatisch mit aufgezeichnet werden. Dadurch besitzt jedes Vollbild auf dem Band seine eigene Adresse (Nummer), und dies ermöglicht extrem präzises Editieren.

- Der Timecode wird automatisch bei jeder Aufnahme als Teil des Zusatzcodes mit aufgezeichnet.
- Beim Einsetzen einer neuen (noch nie bespielten) Cassette beginnt der Timecode automatisch von Null. Beim Einsetzen einer bereits teilweise bespielten Cassette läuft der Timecode ab dem bei der letzten Aufnahme erreichten Stand weiter. (Obwohl in diesem Fall u. U. die Timecode-Anzeige „0h:00m:00s:00f“ erscheinen kann, wird der Timecode beim Aufnahmestart korrekt vom zuletzt aufgezeichneten Timecodewert an aufgenommen.)
- Der Timecodewert kann nicht auf Null zurückgestellt werden.
- In den Sonderwiedergabe-Funktionen (also mit Ausnahme normaler Wiedergabe) wird der Timecode u. U. nicht angezeigt, oder er ist nicht korrekt.
- Hohe Editierpräzision ist nur dann gewährleistet, wenn der Timecode vom Bandanfang an kontinuierlich aufgezeichnet wird. Um sicherzustellen, daß der Timecode ohne Unterbrechung aufgezeichnet wird, empfehlen wir die Benutzung der Funktionen Kamera-Suchlauf (➜ 62) oder Leerstellen-Suchlauf (➜ 64) vor dem erneuten Aufnahmebeginn.

■ Speicherstopp-Funktion

Die Speicherstopp-Funktion ist besonders praktisch für folgende Einsatzmöglichkeiten:

Zurück- oder Vorspulen des Bandes zu einer gewünschten Stelle

1. **Das Bandzählwerk an der Bandstelle, ab welcher Sie später wiedergeben möchten, auf Null zurückstellen. (➜ 126)**
2. **[DISPLAY] im Menü auf [MEMORY] einstellen. (➜ 122-128)**
3. **Die Wiedergabe oder Aufnahme starten.**
4. Nach beendeter Wiedergabe oder Aufnahme:
   Die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] leuchtet.
5. **Das Band zurückspulen.**
   Das Band stoppt automatisch ungefähr an der Stelle, an der das Bandzählwerk auf Null zurückgestellt wurde.

Automatisches Stoppen des Editiervorgangs bei Nachvertonung

1. **Das Bandzählwerk an der Bandstelle, an welcher die Nachvertonung enden soll, auf Null zurückstellen.**
2. **[DISPLAY] im Menü auf [MEMORY] einstellen. (➜ 122-128)**
3. **An der Bandstelle, an welcher die Nachvertonung beginnen soll, auf Standbild-Wiedergabe umschalten.**
4. **Die Nachvertonung starten.**
   Die Nachvertonung stoppt automatisch ungefähr an der Stelle, an der das Bandzählwerk auf Null zurückgestellt wurde.

■ Time Code

Time Code signals are the data which indicates the time in hours, minutes, seconds and frames (25 frames/sec). Having this data included in the recording gives every single picture on the tape its own address.

- The Time Code is automatically recorded as part of the sub code with every recording you make.
- When you insert a new (previously unrecorded) cassette, the Time Code automatically starts from zero. If you insert a recorded cassette, the Time Code continues where the time code of the last previous scene stopped. (In this case, the zero indication [0h:00m:00s:00f] may appear after inserting the cassette, but when the recording starts, the Time Code records from the previous value.)
- You cannot reset the Time Code to zero.
- In playback modes other than the Normal Playback Mode, the Time Code may not be displayed (or not be correct).
- Unless the Time Code is recorded continuously from the beginning of the tape, precise editing may not be possible. To ensure that the Time Code is recorded without interruption, we recommend that you use the Camera Search Function (➜ 62) or Blank Search Function (➜ 64) before starting to record a new scene.

■ Memory Stop Function

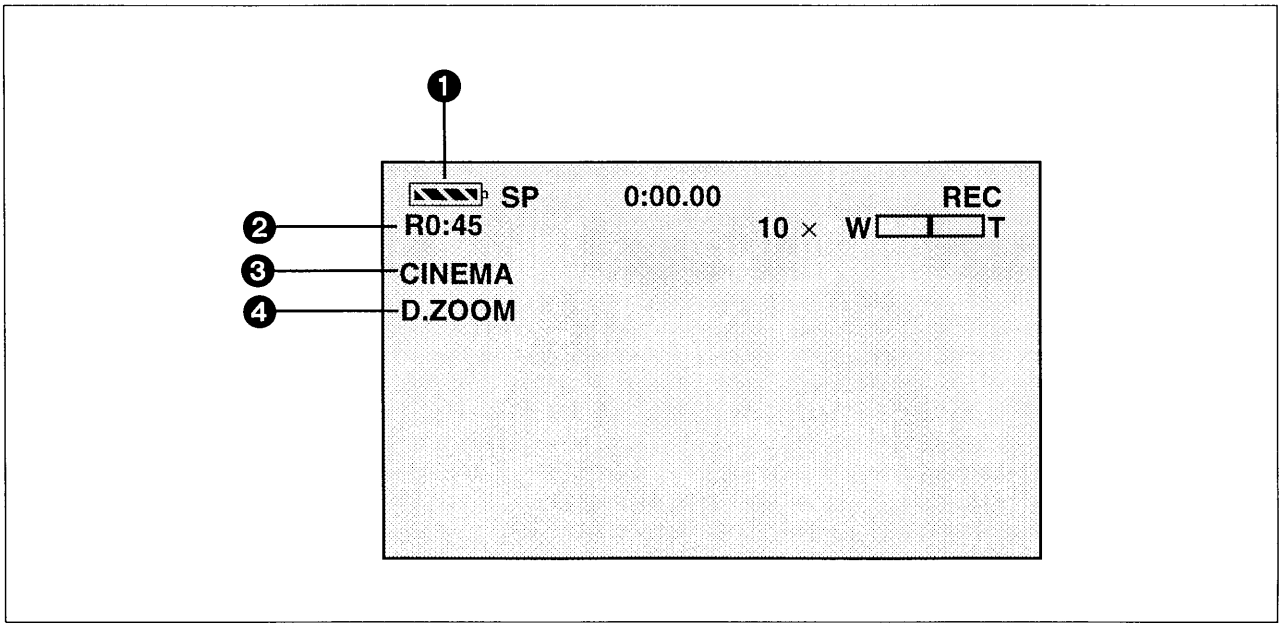
The Memory Stop Function is convenient for the following operations.

Rewinding or fast-forwarding the tape to a desired position

1. **Reset the Tape Counter at the tape position from which you want to play back later. (➜ 126)**
2. **Set [DISPLAY] on the Menu to [MEMORY]. (➜ 122-128)**
3. **Start playback or recording.**
4. After playback or recording is finished:
   Press the [VCR/CAMERA] Button so that the [VCR] Lamp lights.
5. **Rewind the tape.**
   The tape automatically stops approximately at the position at which you reset the counter to zero.

Stopping the editing automatically in the audio dubbing

1. **Reset the Tape Counter to zero at the tape position at which you want the editing to stop.**
2. **Set [DISPLAY] on the Menu to [MEMORY]. (➜ 122-128)**
3. **Play back a still picture at the point at which you want the audio dubbing to start.**
4. **Start the audio dubbing.**
   The audio dubbing automatically stops approximately at the position at which you reset the counter to zero.



DEUTSCH

Anzeigen auf dem LCD-Monitor/im Sucher

❶ **Akkuspannung**
Beim Abnehmen der Akkuspannung ändert sich die Anzeige wie folgt:
▰▰▰▰ → ▰▰▰▱ → ▰▰▱▱ → ▰▱▱▱ → ▱▱▱▱
Wenn der Akku vollständig entladen ist, blinkt die Anzeige ▰▱▱▱ (▱▱▱▱).
(Beim Einsatz des Netzadapters erscheint u. U. die Anzeige ▰▰▰▱; dies ist jedoch in diesem Falle ohne Bedeutung.)

❷ **Bandrestzeit**
Die Bandrestzeit wird in Minuten angezeigt. (Wenn sie unter 3 Minuten absinkt, beginnt die Anzeige zu blinken.)
- Wenn eine Aufnahme weniger als 15 Sekunden dauert, kann die Bandrestzeit nicht korrekt angezeigt werden.
- Die angezeigte Bandrestzeit kann u. U. etwas kürzer sein, als die effektiv auf dem Band verbleibende Zeit.

❸ **Kinoformat-Aufnahmemodus (→ 46)**
Beim Aufnehmen im Kinoformat erscheint diese Anzeige.

❹ **Digital-Zoom (→ 42)**
Wenn die Digital-Zoom-Funktion eingeschaltet wird, erscheint diese Anzeige.

Digital-Effekte (→ 78)
Wenn ein Digital-Effekt eingeschaltet wird, erscheint die entsprechende Anzeige.

ENGLISH

Indications on the LCD Monitor/in the Finder

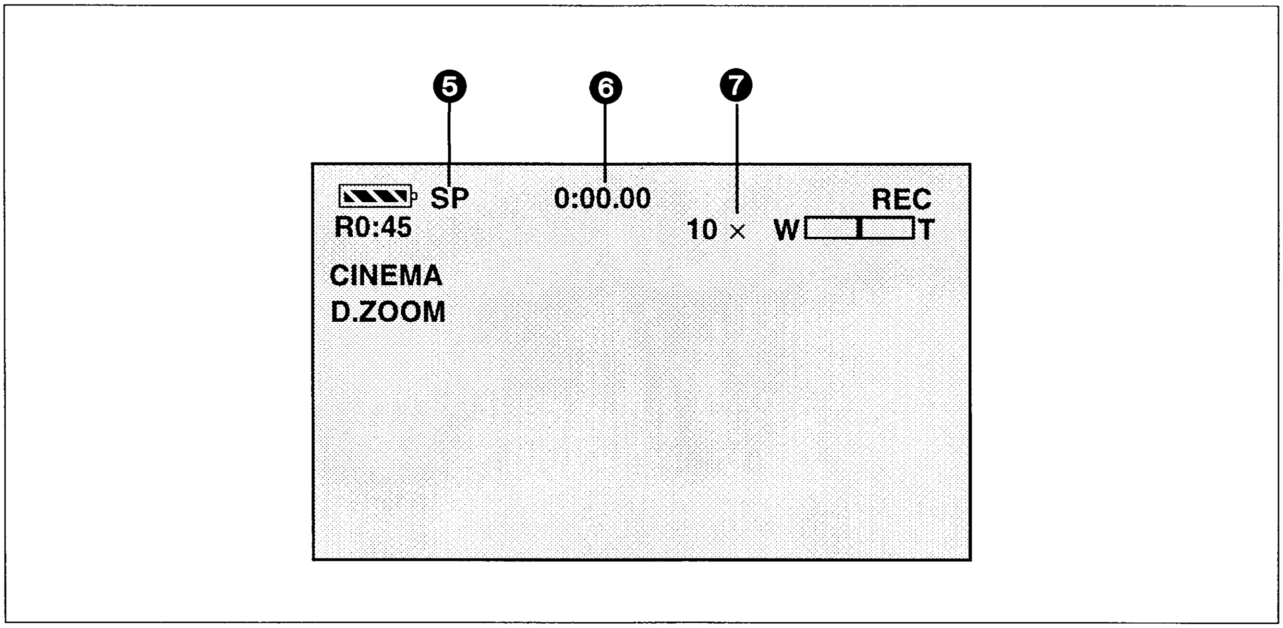
❶ **Remaining Battery Power**
As the remaining battery power decreases, the indication changes as follows:
▰▰▰▰ → ▰▰▰▱ → ▰▰▱▱ → ▰▱▱▱ → ▱▱▱▱
When the battery is completely discharged, the ▰▱▱▱ (▱▱▱▱) Indication flashes.
(When you are using the AC Adapter, the ▰▰▰▱ Indication may appear, however, this has no meaning in this case.)

❷ **Remaining Tape Time**
The remaining tape time is displayed in minutes. (When it becomes less than 3 minutes, the indication starts to flash.)
- If a recording lasts less than 15 seconds, the Remaining Tape Time cannot be displayed correctly.
- The displayed remaining tape time may be shorter than the actual remaining tape time.

❸ **Cinema Mode (→ 46)**
When recording in the Cinema Mode, this indication is displayed.

❹ **Digital Zoom (→ 42)**
When the Digital Zoom Function is activated, this indication is displayed.

Digital Effects (→ 78)
When a digital effect is activated, the corresponding indication is displayed.



DEUTSCH

❺ Aufnahmegeschwindigkeits-Modus (→ 28)

Der gewählte Aufnahmegeschwindigkeits-Modus wird angezeigt.
SP: Standard-Modus
LP: Long-Play-Modus

❻ Bandzählwerk, Timecode (→ 158,166)

Die Bandzählwerk-, die Speicherstopp-Funktions- oder die Timecode-Anzeige wird angezeigt.

❼ Zoom-Vergrößerung (→ 42)

Wenn der Zoomhebel [W/T] nach oben oder unten gedrückt wird, erscheinen die Zoom-Vergrößerungsgrad-Anzeige und die Zoom-Skala.

Aufnahme-Modus (→ 34, 40, 74, 86, 88, 90, 92, 94)

AUTO:	Wenn der Modus-Wahlschalter auf [AUTO] eingestellt wird, erscheint diese Anzeige.
MNL:	Wenn der Modus-Wahlschalter auf [MANUAL] eingestellt wird, erscheint diese Anzeige.
AE LOCK:	Wenn der Modus-Wahlschalter auf [AE LOCK] eingestellt wird, erscheint diese Anzeige.

Digital-Bildstabilisator (→ 48)

▣:	Wenn die Digital-Bildstabilisator-Funktion eingeschaltet wird, erscheint diese Anzeige.

Tonaufnahme-Modus (→ 102)

12bit/16bit:	Die Anzeige des für die Aufnahme gewählten Tonaufnahme-Modus erscheint während der Wiedergabe.

Drucken aller Standbilder*

AUTOPRINT:	Wenn die automatische Druckfunktion benutzt wird, erscheint diese Anzeige.

***Dieser Menüpunkt funktioniert nicht.**

ENGLISH

❺ Recording Speed Mode (→ 28)

The selected Recording Speed Mode is displayed.
SP: Standard Mode
LP: Long-play Mode

❻ Tape Counter, Time Code (→ 158,166)

The Tape Counter, Memory Stop Function or Time Code Indication is displayed.

❼ Zoom Magnification (→ 42)

When you push the [W/T] Zoom Lever up or down, the Zoom Magnification Indication and the Zoom Gauge are displayed.

Recording Mode (→ 34, 40, 74, 86, 88, 90, 92, 94)

AUTO:	This appears when the Mode Selector Switch is set to the [AUTO] position.
MNL:	This appears when the Mode Selector Switch is set to the [MANUAL] position.
AE LOCK:	This appears when the Mode Selector Switch is set to the [AE LOCK] position.

Digital Image Stabilizer (→ 48)

▣:	When the Digital Image Stabilizer Function is activated, this indication is displayed.

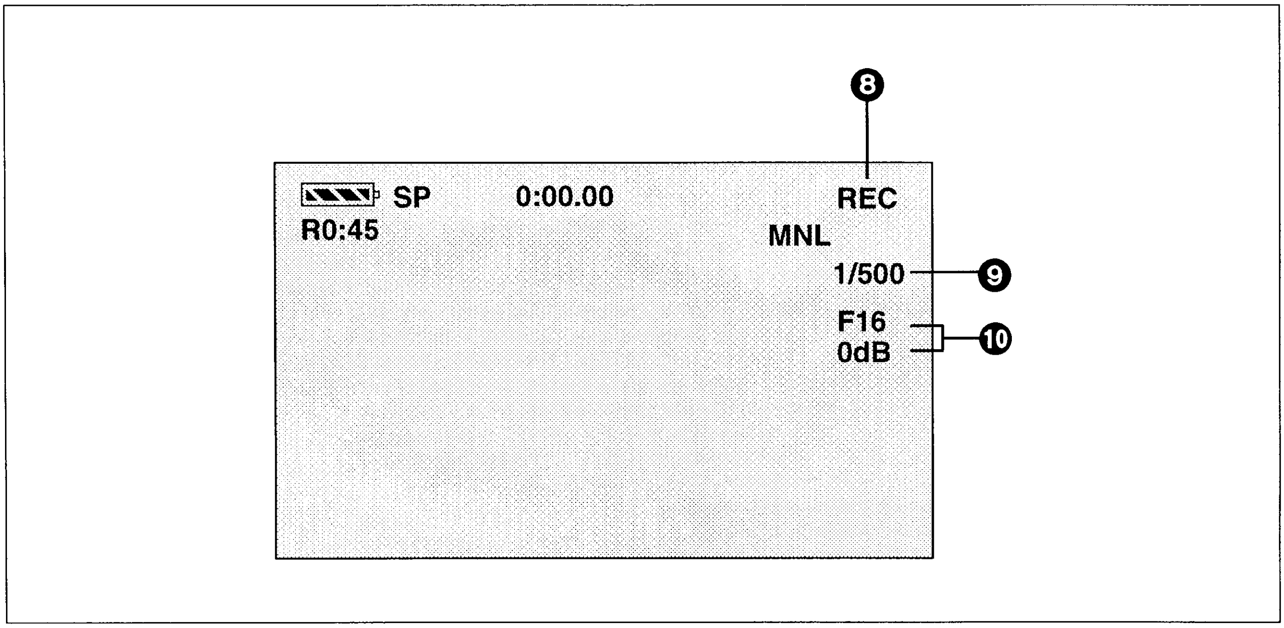
Audio Recording Mode (→ 102)

12bit/16bit:	The indication of the Audio Recording Mode that was selected for recording is displayed during playback.

All Photoshot Pictures Printing*

AUTOPRINT:	This indication is displayed when the Auto Print Function is being used.

***This menu item does not function.**



DEUTSCH

⑧ Bandlauf-Anzeigen

REC:	Aufnahme (➜ 34)
PAUSE:	Aufnahmepause (➜ 34)
▷:	Wiedergabe (➜ 50)/Kamera-Suchlauf vorwärts (➜ 62)
◁:	Kamerasuchlauf rückwärts (➜ 62)
❚❚:	Standbild-Wiedergabe (➜ 56)
▷▷:	Vorspulen/Bildsuchlauf vorwärts (Cue) (➜ 52)
◁◁:	Rückspulen/Bildsuchlauf rückwärts (➜ 50, 52)
❚▷ / ◁❚ :	Zeitlupen-Wiedergabe vorwärts/Zeitlupen-Wiedergabe rückwärts (➜ 54)
❚❚▷ / ◁❚❚:	Einzelbild-Wiedergabe vorwärts/Einzelbild-Wiedergabe rückwärts (➜ 56)
▷▷❚/❚◁◁:	Index-Suchlauf vorwärts/Index-Suchlauf rückwärts (➜ 68, 72)
CHK:	Aufnahmeprüfung (➜ 36)
A.DUB▷:	Nachvertonung (➜ 102)
A.DUB ❚❚:	Nachvertonungspause (➜ 102)
PHOTO:	Standbild-Aufnahme im Photoshot-Modus (➜ 44)
BLANK:	Leerstellen-Suchlauf (➜ 64)
R▷:	Aufnahme-Wiederholung (➜ 146)

- Beim Aufnehmen mit nach vorne gerichtetem LCD-Monitor und Benutzung des Spiegelbild-Modus erscheinen nur die Akkuspannungs-Anzeige, die Aufnahme-Anzeige [●] und die Aufnahmepause-Anzeige [●❚❚].

⑨ Verschlußzeit

Diese Anzeige erscheint, wenn Sie die Verschlußzeit manuell einstellen. (➜ 90)

⑩ Blendenwert/Aufhellungswert

Diese beiden Anzeigen erscheinen zusammen, wenn Sie die Blende und die Aufhellung manuell einstellen. (➜ 92)

ENGLISH

⑧ Tape Run Indications

REC:	Recording (➜ 34)
PAUSE:	Recording Pause (➜ 34)
▷:	Playback (➜ 50)/Camera Search in forward direction (➜ 62)
◁:	Camera Search in reverse direction (➜ 62)
❚❚:	Still playback (➜ 56)
▷▷:	Fast-forward/Cue playback (➜ 52)
◁◁:	Rewind/Review playback (➜ 50, 52)
❚▷ / ◁❚ :	Slow playback in forward direction/ Slow playback in reverse direction (➜ 54)
❚❚▷ / ◁❚❚:	Still Advance playback in forward direction/Still Advance playback in reverse direction (➜ 56)
▷▷❚/❚◁◁:	Index Search in forward direction/ Index Search in reverse direction (➜ 68, 72)
CHK:	Recording check (➜ 36)
A.DUB▷:	Audio dubbing (➜ 102)
A.DUB ❚❚:	Audio dubbing pause (➜ 102)
PHOTO:	Recording in the Photoshot Mode (➜ 44)
BLANK:	Blank Search (➜ 64)
R▷:	Repeat playback (➜ 146)

- When recording with the LCD Monitor facing forward using the Mirror Mode, only the Remaining Battery Power Indication, the Recording Indication [●] and the Recording Pause Indication [●❚❚] are displayed.

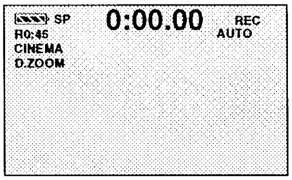
⑨ Shutter Speed

It appears when you manually adjust the shutter speed. (➜ 90)

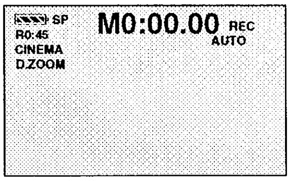
⑩ Iris Value (F Number)/Gain-up Value

These two indications appear together when you manually adjust the iris and gain. (➜ 92)

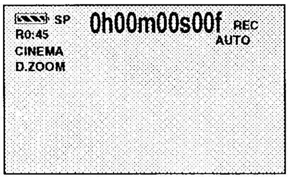
①



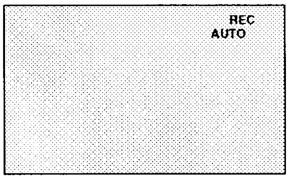
②



③



④



DEUTSCH

Umschalten der Anzeigen

Durch Ändern der Einstellung für [DISPLAY] im Menü (➜ 122–128) oder durch wiederholtes Drücken der Taste [DISPLAY] auf der Fernbedienung (➜ 106) kann der Zählwerk-Anzeigemodus in der Reihenfolge geändert werden, wie in den obigen Abbildungen ①–④ gezeigt.

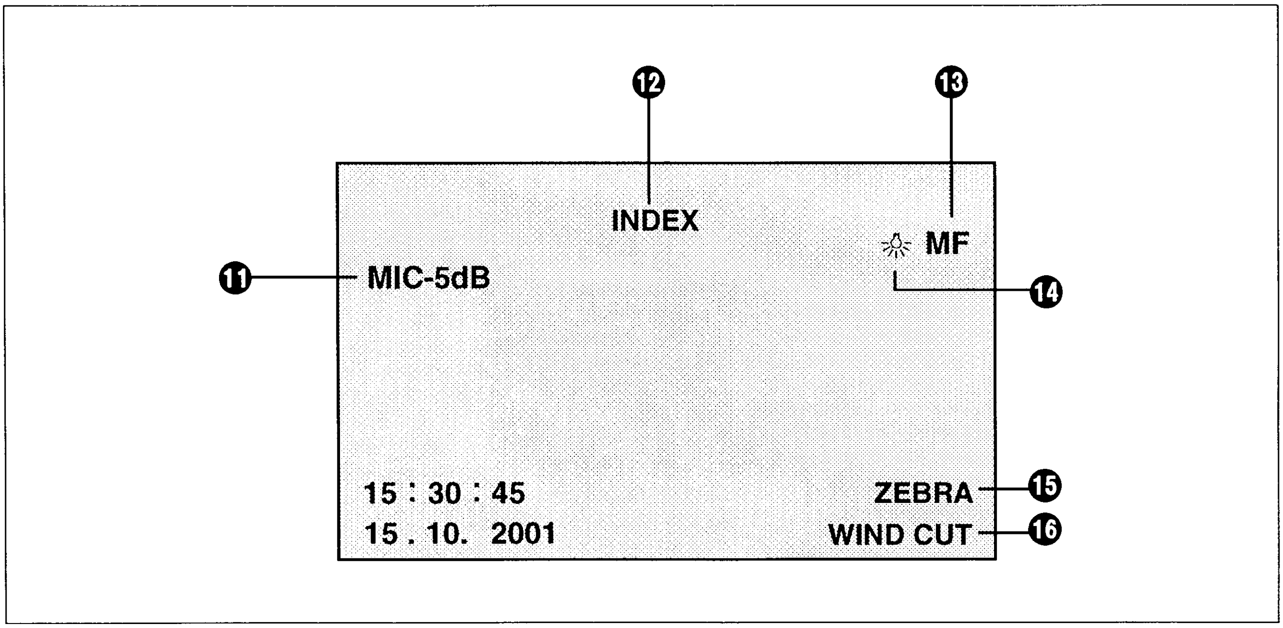
① Bandzählwerk-Anzeige
② Bandzählwerk-Anzeige mit Speicherstopp-Funktionsanzeige
③ Timecode-Anzeige
④ Keine Anzeige
(In diesem Modus können nur die folgenden Anzeigen erscheinen:
Bandlauf-Anzeigen, Warn- und Alarm-Anzeigen, Datum/Uhrzeit, Belichtungsautomatik-Programme, manueller Scharfeinstellungs-Modus, Weißabgleich-Modus und Zoom-Vergrößerung.)

ENGLISH

Changing the Indications

By changing the setting for [DISPLAY] on the Menu (➜ 122–128) or by repeatedly pressing the [DISPLAY] Button on the Remote Controller (➜ 106), the Counter Display Mode can be changed in the order shown in the above illustrations ① to ④:

① Tape Counter Indication
② Tape Counter Indication with activated Memory Stop Indication
③ Time Code Indication
④ No Indication
(In this mode, only the Tape Run Indications, Warning/Alarm Indications, Date/Time Indications, Programme AE Mode Indications, Manual Focus Mode Indications, White Balance Mode Indications, and Zoom Magnification Indication can be displayed.)



DEUTSCH

⑪ Audiopegel

Diese Anzeige zeigt die für die Aufnahme gewählte Audiopegel an. Wenn diese Anzeige in Rot erscheint, wird dadurch angezeigt, daß der aufgenommene Ton verzerrt ist.

Wenn Sie [MIC LEVEL] im Menü für die Aufnahmefunktionen (➔ 124) oder [AUDIO DUB] im Menü für die Wiedergabe-Funktionen (➔ 128) auf [AUTO] einstellen, wird der Mikrofon-Empfindlichkeitspegel nicht angezeigt.

⑫ Index (➔ 66)

INDEX: Diese Anzeige blinkt für einige Sekunden, während ein Index-Signal aufgezeichnet wird.

Suchlauf-Nummer (➔ 70)

S1: Die angezeigte Zahl zeigt an, die wievielte Szene von der gegenwärtigen Szene aus abgespielt werden soll.

⑬ Manuelle Scharfeinstellung (➔ 40)

Wenn Sie den manuellen Scharfeinstellungs-Modus wählen, erscheint die Anzeige [MF].
Wenn der Camerarecorder im Automatik-Modus ist, erscheint diese Anzeige nicht.

⑭ Weißabgleich-Modus (➔ 86)

Der Weißabgleich-Modus bietet die folgenden möglichen Einstellungen mit den entsprechenden Anzeigen:

💡: Innenaufnahme-Modus (Glühlampen-Beleuchtung)
☀: Außenaufnahme-Modus
⊡: Modus verriegelte Weißabgleich-Einstellung

Wenn der Camerarecorder im Automatik-Modus ist, erscheint keine der obigen 3 Anzeigen.

⑮ Zebramuster

Wenn Sie [ZEBRAPATT] im Menü (➔ 124) auf [ON] einstellen, erscheint die Anzeige [ZEBRA].

⑯ Windschutzfilter [WIND CUT]

Wenn Sie [WIND CUT] im Menü (➔ 126) auf [ON] einstellen, erscheint die Anzeige [WIND CUT].

ENGLISH

⑪ Audio Level

This indication shows the selected audio level for recording. When it is displayed in red, it indicates that the sound being recorded is distorted.
If you set [MIC LEVEL] on the Camera Mode Menu (➔ 124), or [AUDIO DUB] on the VCR Mode Menu (➔ 128) to [AUTO], the Microphone Sensitivity Level Indication does not appear.

⑫ Index (➔ 66)

INDEX: The [INDEX] Indication flashes for a few seconds while an index signal is being recorded.

Search Number (➔ 70)

S1: The figure indicates which number of scene ahead from the present scene is to be played back.

⑬ Manual Focus (➔ 40)

If you select the Manual Focus Mode, the [MF] Indication is displayed.
When the Camera Recorder is in the Auto Mode, this indication is not displayed.

⑭ White Balance Mode (➔ 86)

The White Balance Mode offers the following possible settings:

💡: Indoor (Incandescent Lamp) Mode
☀: Outdoor Mode
⊡: Lock Mode

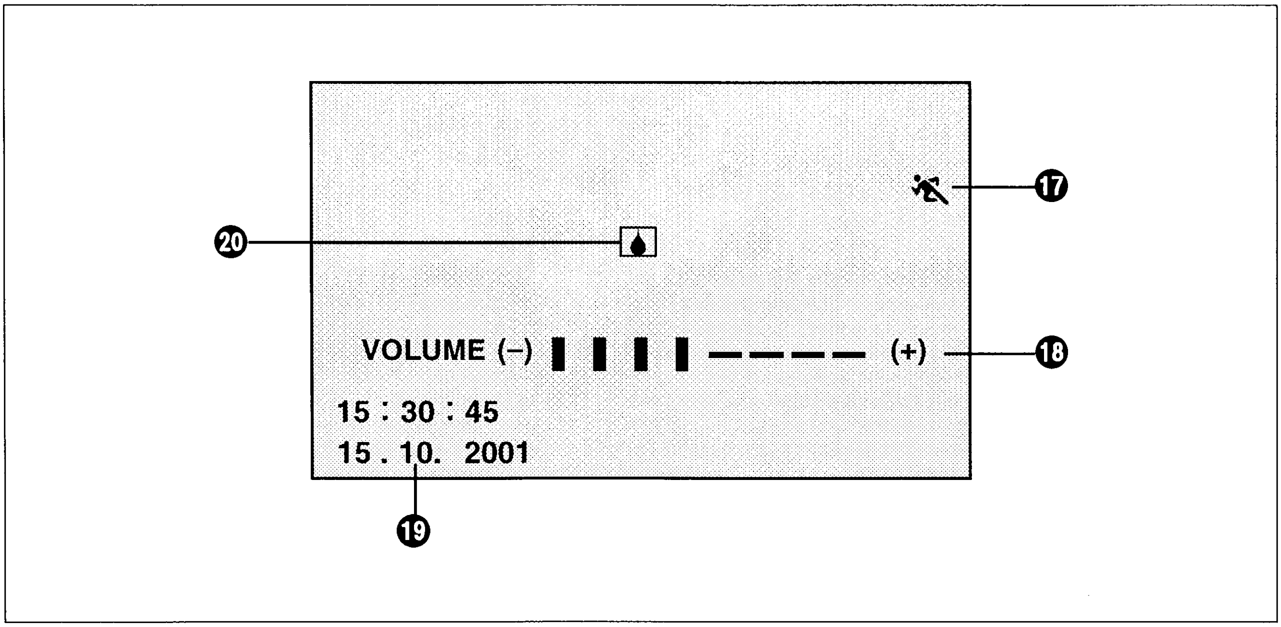
When the Camera Recorder is in the Auto Mode, none of the above 3 indications are displayed.

⑮ Zebra Pattern

If you set [ZEBRAPATT] on the Menu (➔ 124) to [ON], the [ZEBRA] Indication is displayed.

⑯ Wind Buffer [WIND CUT]

If you set [WIND CUT] on the Menu (➔ 126) to [ON], the [WIND CUT] Indication is displayed.



DEUTSCH

⑰ Belichtungsautomatik-Programm-Modus (➜ 74)

Die Belichtungsautomatik-Programmfunktion bietet folgende Einstellungen mit den entsprechenden Anzeigen:

🏃 :	Aufnahmemodus Sport
👥 :	Aufnahmemodus Porträt
🕯:	Aufnahmemodus Schwachlicht

⑱ Lautstärke (➜ 50)

Anhand dieser Anzeigen können Sie die Lautstärke des Wiedergabetons vom eingebauten Lautsprecher regeln.
Wenn die Lampe [VCR] leuchtet, den Regler [PUSH] gedrückt halten, bis die Anzeige [VOLUME] erscheint. Anschließend können Sie durch Drehen des Reglers [PUSH] die Lautstärke regeln.

⑲ Datum und Uhrzeit (➜ 50)

Die Zeit wird im 24-Stunden-System angezeigt.

⑳ Warnung/Alarm

Wenn eine der folgenden Anzeigen leuchtet oder blinkt, sollte der Zustand des Camerarecorders geprüft werden.

💧:	Im Camerarecorder hat sich Kondensation gebildet. (➜ 140)
📼:	Der Löschschutzschieber der eingesetzten Cassette ist geöffent (auf [SAVE] eingestellt). Es ist keine Cassette eingesetzt.
🔋:	Die eingebaute Batterie ist entladen. (➜ 132)
⊗:	Die Videoköpfe sind verschmutzt.
📼END:	Während der Aufnahme: Das Band hat sein Ende erreicht.
REMOTE:	Falscher Fernbedienungs-Modus ist gewählt. (➜ 114)
PRINTER ERROR:	Diese Anzeige erscheint, wenn Sie [AUTOPRINT] im Menü auf [ON] einstellen, obwohl kein Drucker am Camerarecorder angeschlossen ist.

ENGLISH

⑰ Programme AE Mode (➜ 74)

The Programme AE Function offers the following settings:

🏃 :	Sports Mode
👥 :	Portrait Mode
🕯:	Low Light Mode

⑱ Sound Volume (➜ 50)

Use this indication to adjust the volume of the playback sound from the built-in speaker.
With the [VCR] Lamp lit, keep the [PUSH] Dial pressed until the [VOLUME] Indication appears. Then turn the [PUSH] Dial to adjust the volume.

⑲ Date and Time (➜ 50)

The time is indicated in the 24-hour system.

⑳ Warning/Alarm

When any of the following indications lights or flashes, confirm the condition of the Camera Recorder.

💧:	Condensation has occurred. (➜ 140)
📼:	The erasure prevention slider of the inserted cassette is open (set to [SAVE]). No cassette is inserted.
🔋:	The built-in battery is discharged. (➜ 132)
⊗:	The heads are dirty.
📼END:	During recording, the tape has reached its end.
REMOTE:	Wrong Remote Controller Mode is selected. (➜ 114)
PRINTER ERROR:	This indication is displayed if you set [AUTOPRINT] on the Menu to [ON] when no printer is connected to the Camera Recorder.

Vor Inanspruchnahme des Kundendienstes (Probleme und Abhilfe)

Stromversorgung

P1: Der Camerarecorder kann nicht eingeschaltet werden.
A1: Ist der Akku oder der Netzadapter richtig angeschlossen? Die Anschlußverbindung überprüfen. (➜ 20)

P2: Der Camerarecorder hat sich automatisch ausgeschaltet.
A2: Wenn Sie den Camerarecorder länger als 6 Minuten im Aufnahmepause-Modus lassen, schaltet er sich automatisch aus, um das Band zu schützen und Akkustrom zu sparen. (➜ 34)

P3: Der Camerarecorder schaltet sich sofort wieder aus.
A3-1: Ist der Akku entladen? Wenn die Akkuspannungs-Anzeige blinkt, oder die Anzeige [▭] erscheint, ist der Akku entladen. Den Akku aufladen oder einen anderen vollständig aufgeladenen Akku einsetzen. (➜ 22, 160)
A3-2: Hat sich im Innern des Camerarecorders Kondensation gebildet? Wird er von einem kalten an einen warmen Ort gebracht, kann sich Kondensation bilden. In diesem Fall schaltet er sich automatisch aus und, mit Ausnahme von Herausnehmen der Cassette, lassen sich am Camerarecorder keine Funktionen auslösen. Warten, bis die Kondensationsanzeige verschwindet. (➜ 140)

Akku

P1: Der Akku entlädt sich schnell.
A1-1: Ist der Akku vollständig aufgeladen? Den Akku immer so lange aufladen, bis die Ladeanzeigelampe am Netzadapter erlischt. (➜ 22)
A1-2: Benutzen Sie den Akku an einem sehr kalten Ort? Die Leistung des Akkus hängt stark von der Umgebungstemperatur ab. In kalter Umgebung sinkt die Betriebsdauer beträchtlich. (➜ 136)
A1-3: Hat der Akku das Ende seiner Lebenszeit erreicht? Die Lebenszeit des Akkus ist beschränkt, sie hängt jedoch stark davon ab, wie der Akku benutzt und aufgeladen wird. Wenn seine mögliche Betriebszeit sogar nach korrektem Aufladen für den normalen Einsatz zu kurz ist, so hat er das Ende seiner Lebenszeit erreicht.
P2: Der Akku wird nicht geladen.
S2: Wenn das Gleichstromkabel an das Netzgerät angeschlossen ist, ist Laden nicht möglich. Trennen Sie das Gleichstromkabel ab.

Before Requesting Service (Problems & Solutions)

Power Supply

P1: The Camera Recorder does not turn on.
S1: Is the Battery or the AC Adapter connected correctly? Confirm the connection. (➜ 20)

P2: The Camera Recorder has turned off automatically.
S2: If you leave the Camera Recorder in the Recording Pause Mode for more than 6 minutes, it automatically switches off to protect the tape and to conserve battery power. (➜ 34)

P3: The Camera Recorder quickly turns off.
S3-1: Is the Battery discharged? When the Remaining Battery Power Indication is flashing or the [▭] Indication is displayed, the Battery is discharged. Charge the Battery or insert a fully charged Battery. (➜ 22, 160)
S3-2: Has condensation formed? If the Camera Recorder is brought from a cold to a warm place, condensation may form inside. In this case, the Camera Recorder automatically switches off and no operation can be performed except taking out the cassette. Wait until the Condensation Indication disappears. (➜ 140)

Battery

P1: The Battery discharges quickly.
S1-1: Is the Battery fully charged? Charge it until Charge Lamp on the AC Adapter goes off. (➜ 22)
S1-2: Are you using the Battery in a place where the temperature is very low? The ambient temperature greatly influences the Battery’s performance. Its operation time becomes shorter in a cold place. (➜ 136)
S1-3: Has the Battery reached the end of its service life? The service life of the Battery is limited. It depends on the way the Battery is used, but when the operation time even after proper charging is too short for normal use, the service life of the Battery has reached its end.
P2: The Battery cannot be charged.
S2: If the DC Input cable is connected to the AC Adapter, charging is not possible. Disconnect the DC Input cable.

DEUTSCH

Normales Aufnehmen

P1: Die Aufnahme kann nicht gestartet werden, obwohl der Camerarecorder mit Strom versorgt wird und die Cassette richtig eingesetzt ist.

A1-1: Ist der Löschschutzschieber der Cassette geöffnet? Falls er geöffnet ist (auf [SAVE] gestellt), kann nicht aufgenommen werden. (➜ 26)

A1-2: Hat das Band sein Ende erreicht? Eine neue Cassette einsetzen. (➜ 26)

A1-3: Ist der Camerarecorder eingeschaltet? (➜ 34)

A1-4: Leuchtet die Lampe [VCR]? Falls sie leuchtet, kann nicht aufgenommen werden. (➜ 50)

A1-5: Ist die Kondensationsanzeige [💧] sichtbar? Wenn sich Kondensation gebildet hat, können, mit Ausnahme von Herausnehmen der Cassette, am Camerarecorder keine Funktionen ausgelöst werden. Warten, bis die Kondensationsanzeige nicht mehr erscheint. (➜ 140)

Anderes Aufnehmen

P1: Das Bild auf dem LCD-Monitor/im Sucher steht für einige Sekunden still.

A1-1: Haben Sie die Taste [PHOTO SHOT] gedrückt? Durch Drücken der Taste [PHOTO SHOT] wird für ca. 7 Sekunden ein Standbild aufgezeichnet. Danach schaltet der Camerarecorder wieder auf Aufnahmepause um. (➜ 44)

A1-2: Haben Sie die Standbild-Taste [❚❚] gedrückt? Wenn Sie die Standbild-Taste [❚❚] drücken, steht das Bild still. Ganz einfach diese Taste erneut drücken, um auf das laufende Bild zurückzuschalten. (➜ 48)

P2: Die automatische Scharfeinstellung funktioniert nicht.

A2-1: Ist die manuelle Scharfeinstellungs-Funktion gewählt? Wenn Sie die automatische Scharfeinstellungs-Funktion wählen, stellt der Camerarecorder automatisch scharf ein. (➜ 40)

A2-2: Ist der Bildgegenstand oder die Aufnahmesituation für automatische Scharfeinstellung geeignet? Für gewisse Motive und Aufnahmesituation ist der Auto Focus-Modus nicht zweckmäßig. In diesen Fällen sollte mit der manuellen Scharfeinstellungs-Funktion scharf eingestellt werden. (➜ 152)

Editieren

P1: Nachvertonung kann nicht durchgeführt werden.

A1-1: Ist der Löschschutzschieber der Cassette geöffnet? Wenn er auf [SAVE] gestellt ist, ist das Editieren nicht möglich. (➜ 26)

A1-2: Versuchen Sie, auf Bandabschnitte, die im LP-Modus aufgezeichnet wurden, Nachvertonung durchzuführen? Da die im LP-Modus aufgezeichneten Spuren schmaler sind als die Köpfe, ist eine Nachvertonung nicht möglich. (➜ 28)

ENGLISH

Normal Recording

P1: Recording cannot be started even though the Camera Recorder is supplied with power and the cassette is inserted correctly.

S1-1: Is the erasure prevention slider of the cassette open? If it is open (set to [SAVE]), recording is not possible. (➜ 26)

S1-2: Has the tape reached its end? Insert a new cassette. (➜ 26)

S1-3: Is the Camera Recorder turned on? (➜ 34)

S1-4: Is the [VCR] Lamp lit? If it is lit, recording is not possible. (➜ 50)

S1-5: Is the Condensation Indication [💧] displayed? When condensation has formed, no functions except taking out the cassette can be operated. Wait until the Condensation Indication disappears. (➜ 140)

Other Recording

P1: The picture on the LCD Monitor/in the Finder suddenly stands still for a few seconds.

S1-1: Did you press the [PHOTO SHOT] Button? If you press the [PHOTO SHOT] Button, a still picture is recorded for approximately 7 seconds. After approximately 7 seconds, the Camera Recorder switches back to the Recording Pause Mode. (➜ 44)

S1-2: Did you press the Still Button [❚❚]? If you press the Still Button [❚❚], the picture stands still. Simply press this button again to return to the normal moving picture. (➜ 48)

P2: The Auto Focus Function does not work.

S2-1: Is the Manual Focus Mode selected? If you select the Auto Focus Mode, the focus is adjusted automatically. (➜ 40)

S2-2: Is the subject or recording situation suitable for the Auto Focus Mode? The Auto Focus Function does not work correctly for some kinds of subjects and recording situations. In this case, use the Manual Focus Mode to adjust the focus. (➜ 152)

Editing

P1: Audio dubbing cannot be performed.

S1-1: Is the erasure prevention slider of the cassette open? If it is open (set to [SAVE]), editing is not possible. (➜ 26)

S1-2: Are you trying to edit parts of the tape recorded in the LP Mode? As the tracks recorded in the LP Mode are narrower than the heads, audio dubbing is not possible. (➜ 28)

Anzeigen

P1: Der angezeigte Timecode ist nicht korrekt.
A1: Bei Zeitlupen-Wiedergabe rückwärts ist das Zählwerk der Timecode-Anzeige nicht stabil. Dies ist jedoch keine Funktionsstörung.

P2: Die Bandrestzeit-Anzeige verschwindet.
A2: Wenn Sie ein Standbild im Photoshot-Modus aufzeichnen, verschwindet die Bandrestzeit-Anzeige vorübergehend. Wenn Sie jedoch erneut im normalen Aufnahmemodus aufzeichnen, erscheint sie erneut.

P3: Die Bandrestzeit-Anzeige entspricht nicht der effektiv auf dem Band verbleibende Zeit.
A3-1: Wenn Sie wiederholt Szenen von weniger als 15 Sekunden aufzeichnen, wird die Bandrestzeit nicht korrekt angezeigt.
A3-2: Die angezeigte Bandrestzeit kann u. U. 2 - 3 Minuten kürzer sein, als die effektiv auf dem Band verbleibende Zeit.

Wiedergabe (Bild)

P1: Beim Drücken der Wiedergabe-Taste [▶] wird kein Bild wiedergegeben.
A1: Haben Sie die Taste [VCR/CAMERA] gedrückt, so daß die Lampe [VCR] leuchtet? Wenn die Lampe [VCR] nicht leuchtet, kann keine Wiedergabe-Funktion ausgelöst werden. (➜ 50)

P2: Mosaikartige Muster erscheinen im Bild während Bildsuchlauf vorwärts und rückwärts oder Zeitlupen-Wiedergabe.
A2: Dabei handelt es sich um eine für das Digital-Video-System typische Erscheinung. Dies ist keine Funktionsstörung. (➜ 52)

P3: Der Camerarecorder ist korrekt an ein Fernsehgerät angeschlossen, aber es erscheint kein Wiedergabebild.
A3: Haben Sie am Fernsehgerät „Video-Eingang“ gewählt. Lesen Sie bitte die Bedienungsanleitung Ihres Fernsehgerätes durch und wählen Sie das Programm, das den für die Anschlußverbindung benutzten Eingangsbuchsen entspricht.

P4: Das Wiedergabebild ist nicht klar und sauber.
A4: Sind die Videoköpfe des Camerarecorders verschmutzt? Wenn die Köpfe verschmutzt sind, kann das Bild nicht sauber wiedergegeben werden.

Indications

P1: The Time Code becomes incorrect.
S1: In the Slow Motion Playback Mode in reverse direction, the counter of the Time Code Indication may not be stable, however, this is not a malfunction.

P2: The Remaining Tape Time Indication disappears.
S2: If you record a still picture in the Photoshot Mode, the Remaining Tape Time Indication disappears temporarily. However, if you switch the Camera Recorder over to the Normal Recording Mode, it appears again.

P3: The Remaining Tape Time Indication does not match the actual remaining tape time.
S3-1: If scenes of less than 15 seconds are recorded successively, the remaining tape time is not indicated correctly.
S3-2: The Remaining Tape Time Indication may show a remaining tape time that is 2 - 3 minutes shorter than the actual remaining tape time.

Playback (Picture)

P1: No playback picture is reproduced when pressing the Play Button [▶].
S1: Did you press the [VCR/CAMERA] Button so that the [VCR] Lamp lights? When the [VCR] Lamp is not lit, no playback functions can be operated. (➜ 50)

P2: Mosaic-like patterns appear in the picture during Cue, Review or Slow Motion Playback.
S2: This phenomenon is a characteristic of the digital video system. This is not a malfunction. (➜ 52)

P3: The Camera Recorder is correctly connected to a TV, but no playback picture is reproduced.
S3: Did you select “Video Input” on the TV? Carefully read the operating instructions for your TV and select the channel that matches the input sockets used for connection.

P4: The playback picture is not reproduced clearly.
S4: Are the video heads on the Camera Recorder dirty? If the video heads are dirty, the picture cannot be played back clearly.

Wiedergabe (Ton)

P1: Vom eingebauten Lautsprecher des Camerarecorders wird kein Ton wiedergegeben.

A1: Ist die Lautstärke zu niedrig eingestellt? Wenn die Lampe [VCR] leuchtet, den Regler [PUSH] gedrückt halten, bis die Anzeige [VOLUME] erscheint. Anschließend durch Drehen des Reglers [PUSH] die Lautstärke einstellen. (➜ 50)

P2: Verschiedene Tonspuren werden gemischt wiedergegeben.

A2: Ist [AUDIO OUT] im Menü für die Wiedergabefunktionen auf [MIX] eingestellt? Wenn Sie auf einer Cassette, für die Sie vor dem Aufnehmen [AUDIO REC] auf [12bit] eingestellt hatten, Nachvertonung durchgeführt haben, werden der Ton der Originalaufnahme und der mit Nachvertonung hinzugefügte Ton zusammen wiedergegeben. Es ist aber auch möglich, die Spuren getrennt wiederzugeben. (➜ 104)

P3: Der Ton der Originalaufnahme wurde durch die Nachvertonung gelöscht.

A3: Wenn Sie auf einer Aufnahme, die Sie im [16bit]-Modus (➜ 102) gemacht haben, Nachvertonung durchführen, wird der Originalton gelöscht. Wenn Sie den Originalton beibehalten möchten, müssen Sie vor Aufnahmebeginn unbedingt den [12bit]-Modus wählen.

Diverses

P1: Die Cassette kann nicht herausgenommen werden.

A1: Wird der Camerarecorder mit Strom versorgt? Ist der Netzadapter korrekt angeschlossen bzw. der Akku richtig eingesetzt? Zum Herausnehmen des Akkus muß der Camerarecorder mit Strom versorgt werden, der Schalter [POWER] muß jedoch nicht auf [ON] gestellt werden.

P2: Mit Ausnahme von Herausnehmen der Cassette kann keine Funktion ausgelöst werden.

A2: Ist die Kondensationsanzeige [💧] sichtbar? Wenn sich im Innern des Camerarecorders Kondensation gebildet hat, schaltet er automatisch ab, und, mit Ausnahme von Herausnehmen der Cassette, ist jeglicher Betrieb vorübergehend gesperrt. Warten, bis die Kondensationsanzeige verschwindet. (➜ 140)

P3: Die Fernbedienung funktioniert nicht.

A3-1: Ist die Knopfzelle in der Fernbedienung erschöpft? Wenn die Fernbedienung auch ganz nahe beim Fernbedienungs-Sensor am Camerarecorder nicht funktioniert, ist die Knopfzelle erschöpft. Durch eine neue Knopfzelle ersetzen. (➜ 112)

A3-2: Ist der richtige Fernbedienungs-Modus gewählt? Wenn die Einstellung für [REMOTE] im Menü und der an der Fernbedienung gewählte Modus nicht übereinstimmen, kann der Camerarecorder nicht fernbedient werden, und die Anzeige [REMOTE] erscheint. (➜ 114)

Playback (Sound)

P1: No sound is played back from the Camera Recorder’s built-in speaker.

S1: Is the volume set too low? With the [VCR] Lamp lit, keep the [PUSH] Dial pressed until the [VOLUME] Indication appears. Then turn the [PUSH] Dial to adjust the volume. (➜ 50)

P2: Different sounds are played back together.

S2: Is [AUDIO OUT] set to [MIX] on the VCR Mode Menu? If you have performed audio dubbing on a cassette for which you set [AUDIO REC] to [12bit] for recording, the original sound and the sound dubbed with audio dubbing are played back together. It is also possible to play them back individually. (➜ 104)

P3: The original sound was erased by performing audio dubbing.

S3: If you perform audio dubbing on a recording made in the [16bit] Mode (➜ 102), the original sound is erased. If you want to keep the original sound, be sure to select the [12bit] Mode for the original recording.

Others

P1: The cassette cannot be taken out.

S1: Is the Camera Recorder supplied with power? Is the AC Adapter correctly connected or the Battery correctly inserted? To remove the cassette, the Camera Recorder must be supplied with power, however, it is not necessary to set the [POWER] Switch to [ON].

P2: No operation except taking out the cassette can be performed.

S2: Is the Condensation Indication [💧] displayed? If condensation has formed inside the Camera Recorder, it automatically switches off and prevents any operation except taking out the cassette. Wait until the Condensation Indication disappears.
(➜ 140)

P3: The Remote Controller does not work.

S3-1: Is the button-type battery in the Remote Controller exhausted? If the Remote Controller does not work when you use it near the Remote Controller Sensor on the Camera Recorder, the button-type battery is exhausted. Replace it with a new battery. (➜ 112)

S3-2: Is the correct Remote Controller Mode selected? If the Camera Recorder’s setting for [REMOTE] on the Menu and the mode selected on the Remote Controller are not matched, operating the Camera Recorder with the Remote Controller is not possible and the [REMOTE] Indication is displayed. (➜ 114)

DEUTSCH

Technische Daten

Digital-Camerarecorder Informationen für Ihre Sicherheit

Stromversorgung:	Gleichstrom 7,2 V/7,9 V
Leistungsaufnahme:	Aufnahmebetrieb 9,2 W (Einsatz des Suchers) 10,8 W (Einsatz des LCD-Monitors)

Aufnahmeformat:	Digital-Video, SD-Format
Bandformat:	Mini-DV
Aufnahmesignale:	625i (PAL)
Aufnahme-Audiosignale:	16 Bit, 48 kHz für 2 Kanäle; 12 Bit, 32 kHz für 4 Kanäle
Aufnahmespuren:	Schrägspuren für digitale Video- und Audiosignale: Schrägspur
Zeitcode:	Schrägspur (Hilfscodebereich)
Bandgeschwindigkeit:	18,831 mm/s (SP-Modus), 12,568 mm/s (LP-Modus)
Aufnahmezeit:	60 Minuten (im SP-Modus mit AY-DVM60) 90 Minuten (im LP-Modus mit AY-DVM60)
Bandsorte:	ME-Bänder von 6,35 mm Breite (Mini-DV-Cassettenbänder)
Umspulzeit:	Weniger als 80 s (mit AY-DVM60)
Video (Analoge FBAS-Ausgabe)	
Abtastfrequenz:	13,5 MHz für Y, 3,375 MHz für P_B/P_R
Quantisierung:	8 Bit
Video-Komprimierung:	DCT + Code mit variabler Länge
Fehlerkorrektur:	Reed-Solomon Product Code
Audio (Digital-Audio)	
Abtastfrequenz:	48 kHz/32 kHz
Quantisierung:	16 Bit/12 Bit
Video-Ausgangssignale	
Monitor-Ausgang:	Phono × 1, 1,0 Vs-s, 75 Ohm
S-VIDEO-Ausgang:	S-VIDEO × 1, 75 Ohm, Y: 1,0 Vs-s, C: 0,3 Vs-s
Audio-Ein-/Ausgangssignale	
Mikrofon-Eingang:	3,5 mm, Stereo-Minibuchse (–70 dBv, hohe Impedanz)
XLR-Eingang (CH1/CH2):	Hohe Impedanz, 0/–60 dBu (LINE/MIC wählbar)
Eingebaut Microfon:	Stereo
Audio-Ausgang:	Phono × 2 (CH1/CH2), –10 dBv, niedrige Impedanz
Kopfhörer-Ausgang:	3,5 mm, Stereo-Minibuchse
Sonstige Ein-/Ausgangssignale	
Digitale Schnittstelle:	4-polig (DV E/A-Anschluß, entspricht IEEE 1394, 4P)
Kameraeinheit	
Aufnahmevorrichtung:	1/4-Zoll, 510H × 3 CCD (Pixelversatzsystem)
Anzahl der Pixel:	320.000
Empfindlichkeit:	1.400 Lux
Minimale Beleuchtungsstärke:	5 Lux (im Digital-Aufhellungsmodus)
Rauschabstand:	46 dB
Horizontalauflösung:	460 Linien
Abtastfrequenz:	13,5 MHz/27 MHz
Verschlußzeiten:	1/50 bis 1/8000 s (14 Stufen)
Verstärkungs-Umschaltung:	0, 3, 6, 9, 12, 18 dB
Optisches Farbtrennungssystem:	Prismensystem
Objektiv:	Blendenautomatik, 12x Motorzoomobjektiv, F1,6, f=4,16 bis 47,66 mm
Abmessungen:	211 (B) × 224 (H) × 431 (T) mm
Gewich:	2,3 kg (ohne Akku) 2,5 kg (mit Akku, Tragriemen und Cassette)
Betriebstemperatur:	0°C–40°C
Luftfeuchtigkeit:	10%–80% (ohne Kondensabbildung)

ENGLISH

Specifications

Digital Video Camera Information for your safety

Power Source:	DC 7.2/7.9 V
Power Consumption:	Recording 9.2 W (When using Finder) 10.8 W (When using LCD Monitor)

Recording format:	Digital video SD format
Tape format:	Mini-DV
Recording signals:	625i (PAL)
Recording audio signals:	16 bits, 48 kHz for 2 channels; 12 bits, 32 kHz for 4 channels
Recording tracks:	Helical tracks for digital video and audio: Helical track
Time code:	Helical track (sub-code area)
Tape speed:	18.831 mm/sec (SP mode), 12.568 mm/sec (LP mode)
Recording time:	60 minutes (in SP mode using AY-DVM60) 90 minutes (in LP mode using AY-DVM60)
Tape used:	6.35 mm wide ME tapes (Mini-DV cassette tapes)
FF/REW time:	Less than 80 sec. (using AY-DVM60)
Video (Analog composite OUT)	
Sampling frequency:	13.5 MHz for Y, 3.375 MHz for P_B/P_R
Quantizing:	8 bits
Video compression system:	DCT + variable-length code
Error correction:	Reed-Solomon product code
Audio (Digital audio)	
Sampling frequency:	48 kHz/32 kHz
Quantizing:	16 bits/12 bits
Video output signals	
Monitor output:	Phono × 1, 1.0 Vp-p, 75 ohms
S-VIDEO output:	S-VIDEO × 1, 75 ohms, Y: 1.0 Vp-p, C: 0.3 Vp-p
Audio input/output signals	
MIC input:	3.5 mm, stereo-mini jack (–70 dBv, high impedance)
XLR input (CH1/CH2):	High impedance, 0/–60 dBu (LINE/MIC selectable)
Built-in microphone:	Stereo
Audio output:	Phono × 2 (CH1/CH2), –10 dBv, low impedance
Headphone output:	3.5 mm, stereo-mini jack
Other input/output signals	
Digital interface:	4 pins (DV I/O connector, compliant with IEEE 1394, 4P)
Camera unit	
Pickup device:	1/4-inch, 510H × 3 CCD (pixel offset system)
Number of pixels:	320,000
Sensitivity:	1,400 lux
Minimum brightness:	5 lux (in digital increased gain mode)
Signal-to-noise ratio:	46 dB
Horizontal resolution:	460 lines
Sampling frequency:	13.5 MHz/27 MHz
Shutter speed:	1/50 to 1/8000 (14 steps)
Gain switching:	0, 3, 6, 9, 12, 18 dB
Color separation optical system:	Prism system
Lens:	Automatic iris, 12X motorized zoom lens, F1.6, f=4.16 to 47.66 mm
Dimennsions:	211 (W) × 224 (H) × 431 (T) mm
Weight:	2.3 kg (without battery) 2.5 kg (with battery, shoulder strap and cassette)
Operating Temperature:	0°C–40°C
Operating Humidity:	10%–80% (no condensation)

DEUTSCH

Technische Daten

Netzadapter

Informationen für Ihre Sicherheit

Stromversorgung:	Wechselstrom 100–240 V, 50/60 Hz
Leistungsaufnahme:	20 Watt
Gleichstrom-Ausgang:	Gleichstrom 7,9 V, 1,4 A (Camerarecorder-Betrieb) 8,4 V, 1,2 A (Aufladen des Akkus)

Abmessungen:	70 (B) × 44,5 (H) × 116 (T) mm
Gewicht:	ca. 160 g

Bei Gewicht und Abmessungen handelt es sich um Näherungswerte.
Änderungen der technischen Daten vorbehalten.

ENGLISH

Specifications

AC Adapter

Information for your safety

Power Source:	AC 100–240 V, 50/60 Hz
Power Consumption:	20W
DC Output:	DC 7.9 V, 1.4 A (Camera Recorder Operation) DC 8.4 V, 1.2 A (Battery Charging)

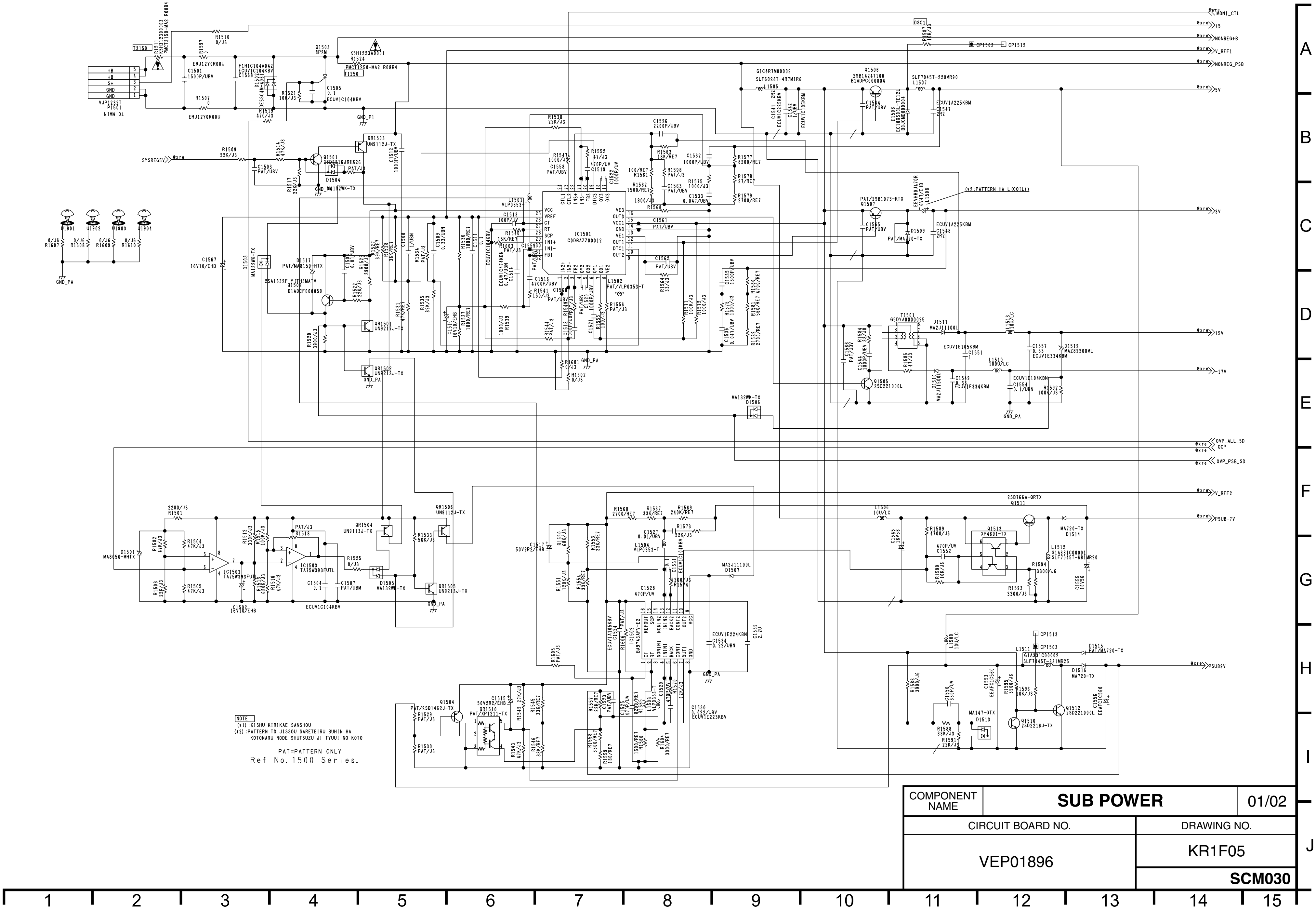
Dimensions:	70 (W) × 44.5 (H) × 116 (D) mm
Weight:	Approx. 160 g

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-8691, Japan

Printed in Japan
VQT9246

F0201H1031 D E


MONI_CTL
+5
NONREG+B
V_REF1
NONREG_PSB
5V
3V
15V
-17V
OVP_ALL_SD
OCP
OVP_PSB_SD
V_REF2
PSUB-7V
PSUB9V
SYSREG5V
TO MAIN
P1501
VJP1232T
+B
S+
GND
T3150
T1250
GND_P1
GND_PA
U1901
U1902
U1903
U1904
IC1501
C0DBAZZ00012
IC1502
BA9743AFV-E2
IC1503
TA75W393FUTL
T1501
G5DYA0000025
Q1501
Q1502
Q1503
Q1504
Q1505
Q1506
Q1507
Q1510
Q1511
Q1512
Q1513
QR1501
QR1502
QR1503
QR1504
QR1505
QR1506
QR1510
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L1507
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L1511
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CP1502
CP1503
CP1512
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(*2:PATTERN HA L(COIL))
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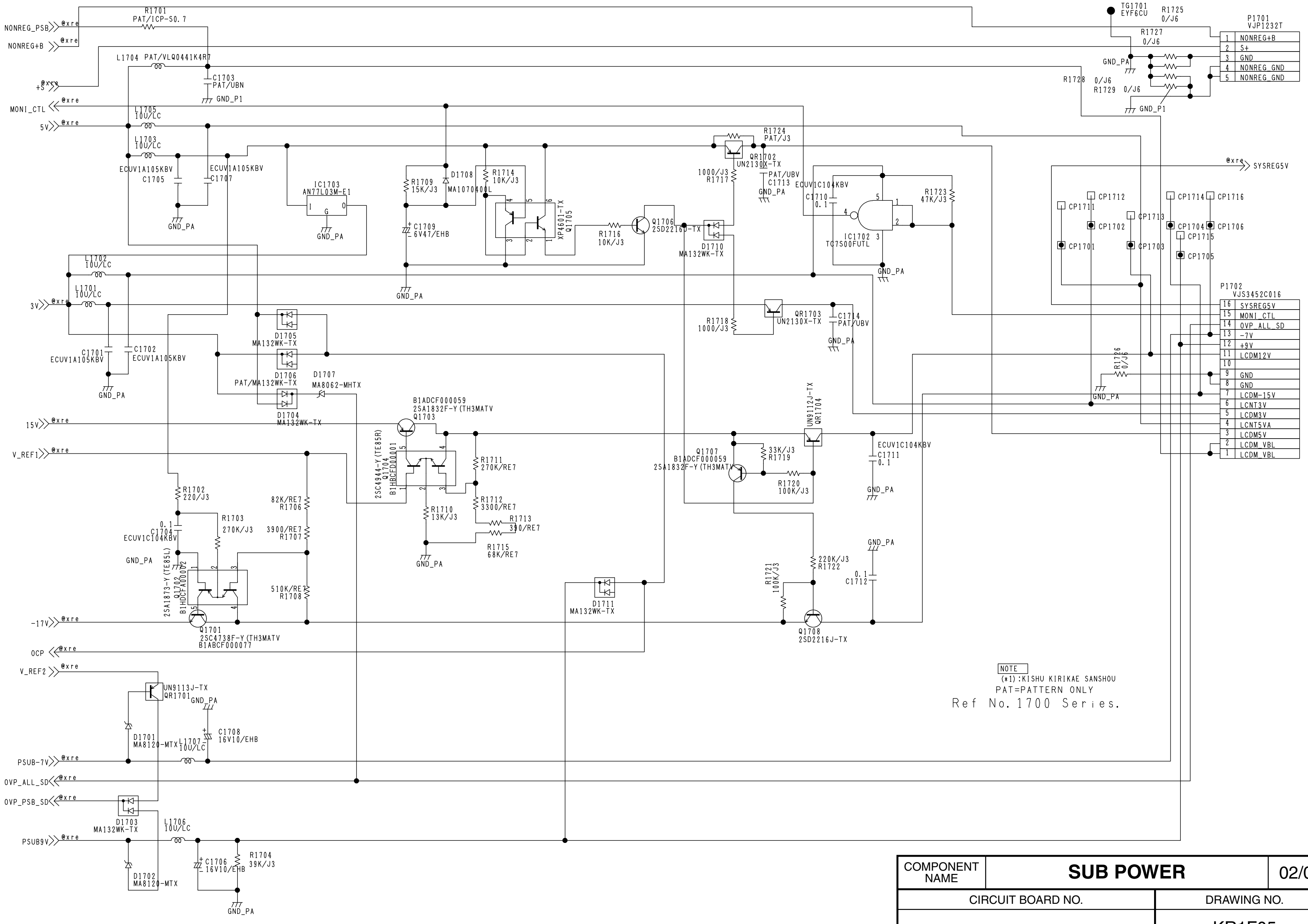
NOTE
(*1):KISHU KIRIKAE SANSHOU
(*2):PATTERN TO JISSOU SARETEIRU BUHIN HA
KOTONARU NODE SHUTSUZU JI TYUUI NO KOTO

PAT=PATTERN ONLY
Ref No.1500 Series.

COMPONENT NAME	SUB POWER	01/02
CIRCUIT BOARD NO.		DRAWING NO.
VEP01896		KR1F05
		SCM030


NONREG_PSB
NONREG+B
+5
MONI_CTL
5V
3V
15V
V_REF1
-17V
OCP
V_REF2
PSUB-7V
OVP_ALL_SD
OVP_PSB_SD
PSUB9V
@xre
R1701
PAT/ICP-S0.7
L1704 PAT/VLQ0441K4R7
C1703
PAT/UBN
GND_P1
L1705
10U/LC
L1703
10U/LC
ECUV1A105KBV
C1705
ECUV1A105KBV
C1707
GND_PA
IC1703
AN77L03M-E1
1 G 0
R1709
15K/J3
D1708
MA1070400L
R1714
10K/J3
C1709
6V47/EHB
XP4601-TX
Q1705
R1716
10K/J3
Q1706
2SD2216J-TX
R1724
PAT/J3
QR1702
UN2130X-TX
1000/J3
R1717
PAT/UBV
C1713
D1710
MA132WK-TX
ECUV1C104KBV
C1710
0.1
IC1702
TC7S00FUTL
R1723
47K/J3
L1702
10U/LC
L1701
10U/LC
C1701
ECUV1A105KBV
C1702
ECUV1A105KBV
D1705
MA132WK-TX
D1706
PAT/MA132WK-TX
D1707
MA8062-MHTX
D1704
MA132WK-TX
R1718
1000/J3
QR1703
UN2130X-TX
C1714
PAT/UBV
B1ADCF000059
2SA1832F-Y(TH3MATV
Q1703
2SC4944-Y(TE85R)
Q1704
B1HBCFD00001
R1711
270K/RE7
R1712
3300/RE7
R1713
390/RE7
R1715
68K/RE7
R1710
13K/J3
82K/RE7
R1706
3900/RE7
R1707
510K/RE7
R1708
R1702
220/J3
0.1
C1704
ECUV1C104KBV
R1703
270K/J3
2SA1873-Y(TE85L)
Q1702
B1HDCFA00002
Q1701
2SC4738F-Y(TH3MATV
B1ABCF000077
D1711
MA132WK-TX
UN9112J-TX
QR1704
Q1707
B1ADCF000059
2SA1832F-Y(TH3MATV
33K/J3
R1719
R1720
100K/J3
ECUV1C104KBV
C1711
0.1
R1721
100K/J3
220K/J3
R1722
0.1
C1712
Q1708
2SD2216J-TX
UN9113J-TX
QR1701
C1708
16V10/EHB
D1701
MA8120-MTX
L1707
10U/LC
D1703
MA132WK-TX
L1706
10U/LC
C1706
16V10/EHB
R1704
39K/J3
D1702
MA8120-MTX
TG1701
EYF6CU
R1725
0/J6
R1727
0/J6
R1728 0/J6
R1729 0/J6
P1701
VJP1232T
1 NONREG+B
2 S+
3 GND
4 NONREG_GND
5 NONREG_GND
SYSREG5V
CP1711
CP1712
CP1713
CP1714
CP1716
CP1702
CP1704
CP1706
CP1701
CP1703
CP1715
CP1705
P1702
VJS3452C016
16 SYSREG5V
15 MONI_CTL
14 OVP_ALL_SD
13 -7V
12 +9V
11 LCDM12V
10
9 GND
8 GND
7 LCDM-15V
6 LCNT3V
5 LCDM3V
4 LCNT5VA
3 LCDM5V
2 LCDM_VBL
1 LCDM_VBL
R1726
0/J6
NOTE
(*1):KISHU KIRIKAE SANSHOU
PAT=PATTERN ONLY
Ref No.1700 Series.
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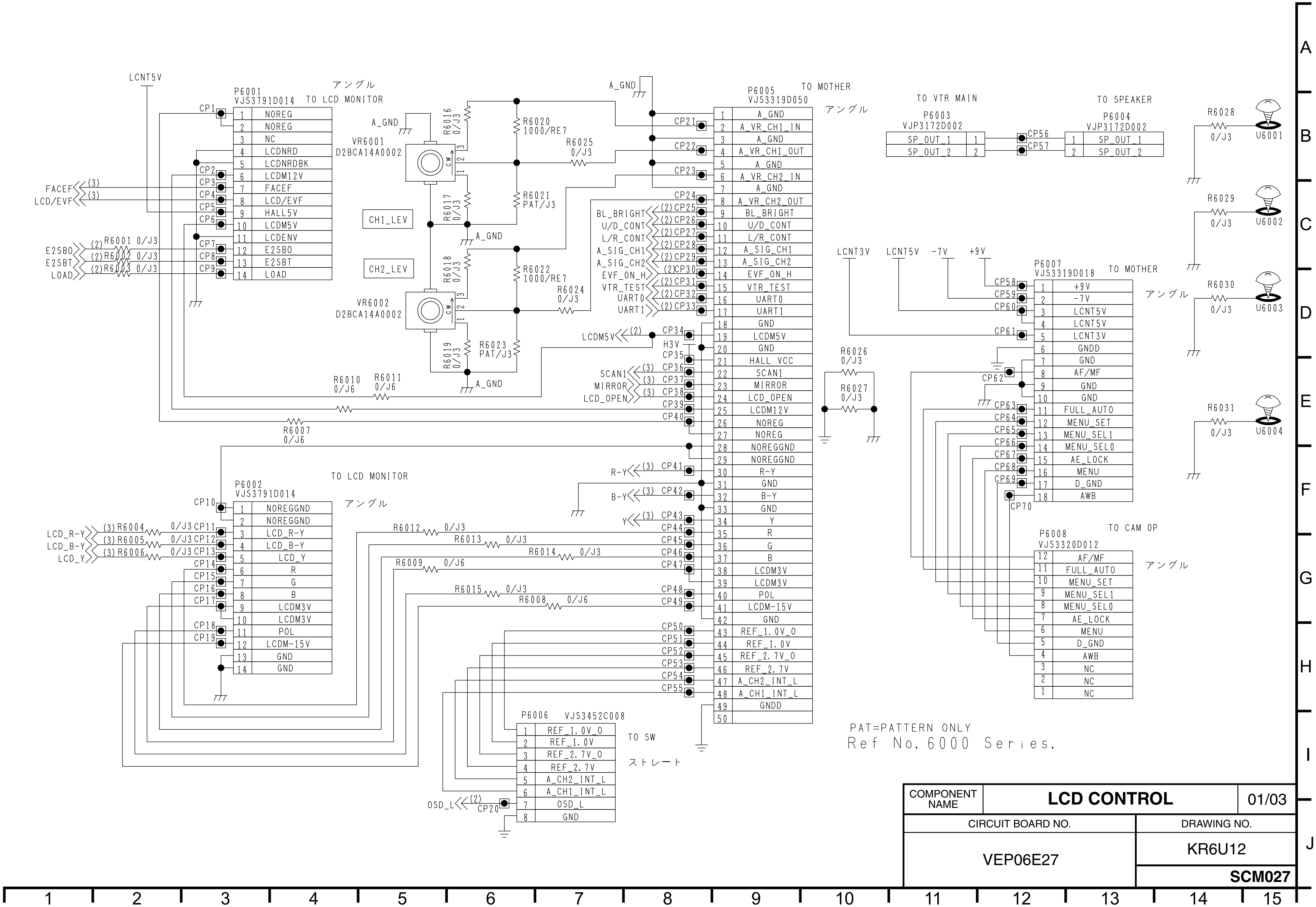
COMPONENT NAME	**SUB POWER**	02/02
CIRCUIT BOARD NO.	DRAWING NO.	
VEP01896	KR1F05 **SCM031**	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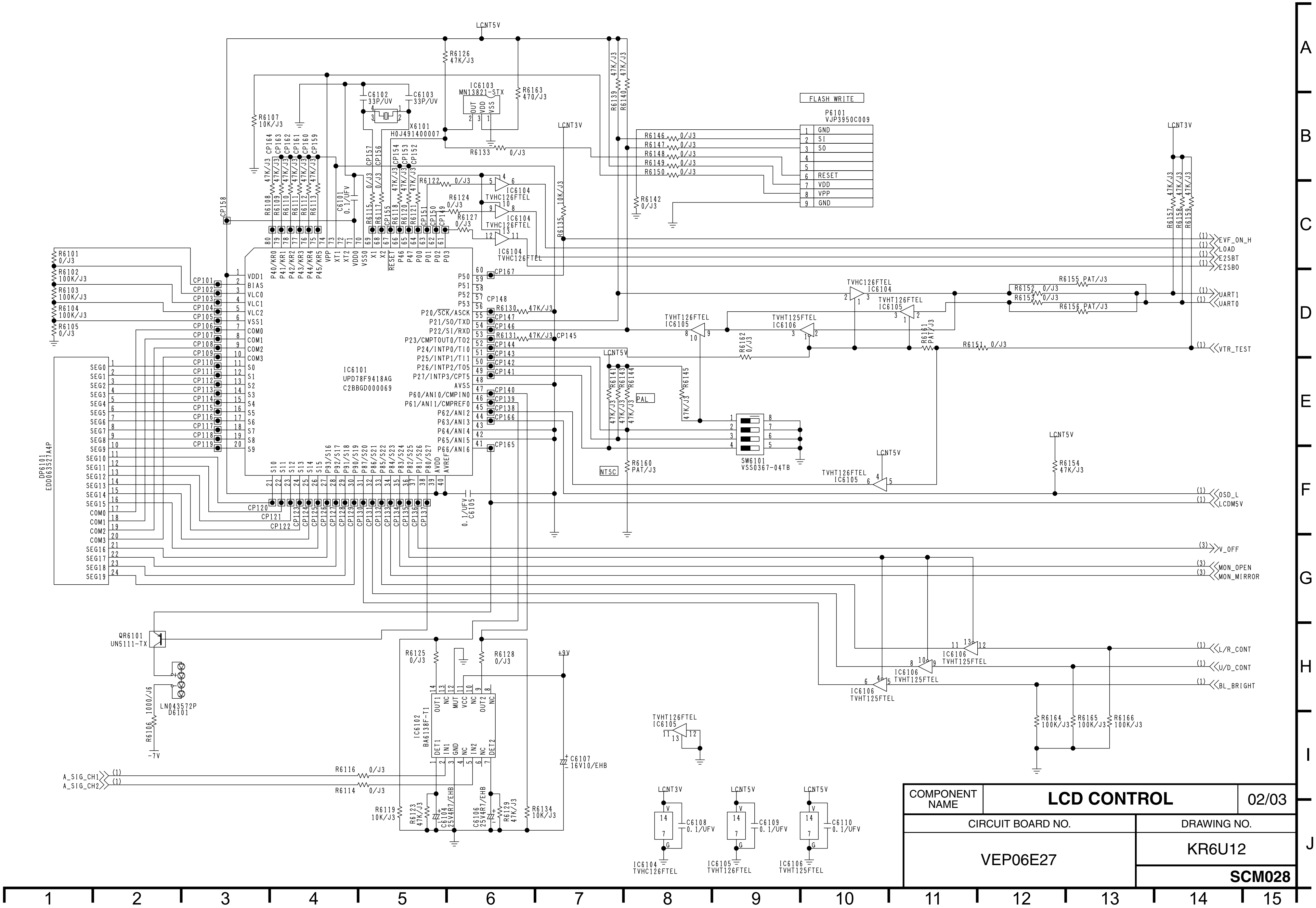
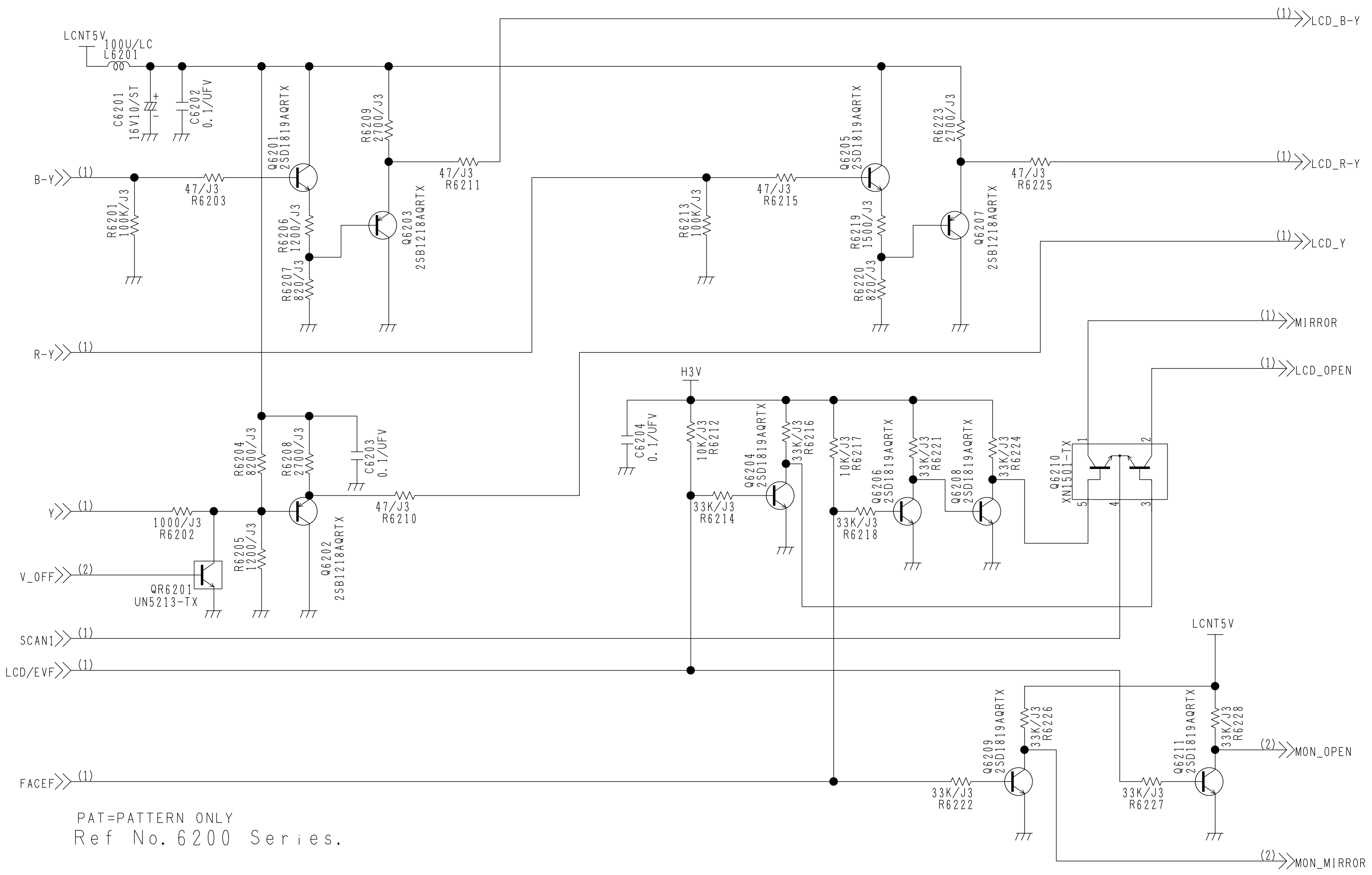
LCNT5V
P6001
VJS3791D014
アングル
TO LCD MONITOR
CP1
1 NOREG
2 NOREG
3 NC
4 LCDNRD
5 LCDNRDBK
6 LCDM12V
7 FACEF
8 LCD/EVF
9 HALL5V
10 LCDM5V
11 LCDENV
12 E2SBO
13 E2SBT
14 LOAD
CP2
CP3
CP4
CP5
CP6
CP7
CP8
CP9
FACEF (3)
LCD/EVF (3)
E2SBO (2) R6001 0/J3
E2SBT (2) R6002 0/J3
LOAD (2) R6003 0/J3
A_GND
VR6001
D2BCA14A0002
VR6002
D2BCA14A0002
CW
CH1_LEV
CH2_LEV
R6016 0/J3
R6017 0/J3
R6018 0/J3
R6019 0/J3
R6020 1000/RE7
R6021 PAT/J3
R6022 1000/RE7
R6023 PAT/J3
R6024 0/J3
R6025 0/J3
R6010 0/J6
R6011 0/J6
R6007 0/J6
A_GND
P6005
VJS3319D050
TO MOTHER
アングル
1 A_GND
2 A_VR_CH1_IN
3 A_GND
4 A_VR_CH1_OUT
5 A_GND
6 A_VR_CH2_IN
7 A_GND
8 A_VR_CH2_OUT
9 BL_BRIGHT
10 U/D_CONT
11 L/R_CONT
12 A_SIG_CH1
13 A_SIG_CH2
14 EVF_ON_H
15 VTR_TEST
16 UART0
17 UART1
18 GND
19 LCDM5V
20 GND
21 HALL VCC
22 SCAN1
23 MIRROR
24 LCD_OPEN
25 LCDM12V
26 NOREG
27 NOREG
28 NOREGGND
29 NOREGGND
30 R-Y
31 GND
32 B-Y
33 GND
34 Y
35 R
36 G
37 B
38 LCDM3V
39 LCDM3V
40 POL
41 LCDM-15V
42 GND
43 REF_1.0V_O
44 REF_1.0V
45 REF_2.7V_O
46 REF_2.7V
47 A_CH2_INT_L
48 A_CH1_INT_L
49 GNDD
50
CP21
CP22
CP23
CP24
BL_BRIGHT (2) CP25
U/D_CONT (2) CP26
L/R_CONT (2) CP27
A_SIG_CH1 (2) CP28
A_SIG_CH2 (2) CP29
EVF_ON_H (2) CP30
VTR_TEST (2) CP31
UART0 (2) CP32
UART1 (2) CP33
LCDM5V (2) CP34
H3V
CP35
SCAN1 (3) CP36
MIRROR (3) CP37
LCD_OPEN (3) CP38
CP39
CP40
R-Y (3) CP41
B-Y (3) CP42
Y (3) CP43
CP44
CP45
CP46
CP47
CP48
CP49
CP50
CP51
CP52
CP53
CP54
CP55
P6002
VJS3791D014
TO LCD MONITOR
アングル
CP10
1 NOREGGND
2 NOREGGND
3 LCD_R-Y
4 LCD_B-Y
5 LCD_Y
6 R
7 G
8 B
9 LCDM3V
10 LCDM3V
11 POL
12 LCDM-15V
13 GND
14 GND
LCD_R-Y (3) R6004 0/J3 CP11
LCD_B-Y (3) R6005 0/J3 CP12
LCD_Y (3) R6006 0/J3 CP13
CP14
CP15
CP16
CP17
CP18
CP19
R6012 0/J3
R6013 0/J3
R6014 0/J3
R6009 0/J6
R6015 0/J3
R6008 0/J6
P6006 VJS3452C008
TO SW
ストレート
1 REF_1.0V_O
2 REF_1.0V
3 REF_2.7V_O
4 REF_2.7V
5 A_CH2_INT_L
6 A_CH1_INT_L
7 OSD_L
8 GND
OSD_L (2) CP20
TO VTR MAIN
P6003
VJP3172D002
SP_OUT_1 1
SP_OUT_2 2
CP56
CP57
TO SPEAKER
P6004
VJP3172D002
1 SP_OUT_1
2 SP_OUT_2
R6028 0/J3
U6001
R6029 0/J3
U6002
R6030 0/J3
U6003
R6031 0/J3
U6004
LCNT3V
LCNT5V
-7V
+9V
P6007
VJS3319D018
TO MOTHER
アングル
CP58
CP59
CP60
CP61
CP62
CP63
CP64
CP65
CP66
CP67
CP68
CP69
CP70
1 +9V
2 -7V
3 LCNT5V
4 LCNT5V
5 LCNT3V
6 GNDD
7 GND
8 AF/MF
9 GND
10 GND
11 FULL_AUTO
12 MENU_SET
13 MENU_SEL1
14 MENU_SEL0
15 AE_LOCK
16 MENU
17 D_GND
18 AWB
R6026 0/J3
R6027 0/J3
P6008
VJS3320D012
TO CAM OP
アングル
12 AF/MF
11 FULL_AUTO
10 MENU_SET
9 MENU_SEL1
8 MENU_SEL0
7 AE_LOCK
6 MENU
5 D_GND
4 AWB
3 NC
2 NC
1 NC
PAT=PATTERN ONLY
Ref No.6000 Series.

COMPONENT NAME	LCD CONTROL	01/03
CIRCUIT BOARD NO.	DRAWING NO.	
VEP06E27	KR6U12	
	SCM027	


LCNT5V
R6126 47K/J3
IC6103 MN13821-STX
OUT VDD VSS
R6163 470/J3
C6102 33P/UV
C6103 33P/UV
X6101 H0J491400007
R6107 10K/J3
R6133 0/J3
LCNT3V
R6139 47K/J3
R6140 47K/J3
FLASH WRITE
P6101 VJP3950C009
GND
SI
SO
RESET
VDD
VPP
R6146 0/J3
R6147 0/J3
R6148 0/J3
R6149 0/J3
R6150 0/J3
R6142 0/J3
R6122 0/J3
R6124 0/J3
R6127 0/J3
IC6104 TVHC126FTEL
R6135 10K/J3
CP158
CP164 CP163 CP162 CP161 CP160 CP159
R6108 R6109 R6110 R6111 R6112 R6113 47K/J3
C6101 0.1/UFV
CP157 CP156 CP155 CP154 CP153 CP152 CP151 CP150 CP149
R6115 R6117 0/J3
R6118 R6120 R6121 47K/J3
R6101 0/J3
R6102 100K/J3
R6103 100K/J3
R6104 100K/J3
R6105 0/J3
CP101 … CP119
VDD1 BIAS VLC0 VLC1 VLC2 VSS1 COM0 COM1 COM2 COM3 S0 S1 S2 S3 S4 S5 S6 S7 S8 S9
P40/KR0 P41/KR1 P42/KR2 P43/KR3 P44/KR4 P45/KR5 VPP XT1 XT2 VDD0 VSS0 X1 X2 RESET P46 P47 P00 P01 P02 P03
IC6101 UPD78F9418AG C2BBGD000069
P50 P51 P52 P53 P20/SCK/ASCK P21/SO/TXD P22/SI/RXD P23/CMPTOUT0/TO2 P24/INTP0/TI0 P25/INTP1/TI1 P26/INTP2/TO5 P27/INTP3/CPT5 AVSS P60/ANI0/CMPIN0 P61/ANI1/CMPREF0 P62/ANI2 P63/ANI3 P64/ANI4 P65/ANI5 P66/ANI6
S10 S11 S12 S13 S14 S15 P93/S16 P92/S17 P91/S18 P90/S19 P87/S20 P86/S21 P85/S22 P84/S23 P83/S24 P82/S25 P81/S26 P80/S27 AVDD AVREF
CP167 CP148 CP147 CP146 CP145 CP144 CP143 CP142 CP141 CP140 CP139 CP138 CP166 CP165
R6130 47K/J3
R6131 47K/J3
CP120 CP121 CP122 CP123 … CP137
C6105 0.1/UFV
DP6101 EDD063S27A4P
SEG0 SEG1 SEG2 SEG3 SEG4 SEG5 SEG6 SEG7 SEG8 SEG9 SEG10 SEG11 SEG12 SEG13 SEG14 SEG15 COM0 COM1 COM2 COM3 SEG16 SEG17 SEG18 SEG19
LCNT5V
R6141 R6143 R6144 47K/J3
R6145 47K/J3
PAL
NTSC
R6160 PAT/J3
SW6101 VSS0367-04TB
IC6105 TVHT126FTEL
IC6106 TVHT125FTEL
IC6104 TVHC126FTEL
R6162 0/J3
R6161 PAT/J3
R6151 0/J3
R6152 0/J3
R6153 0/J3
R6155 PAT/J3
R6156 PAT/J3
R6157 R6158 R6159 47K/J3
R6154 47K/J3
(1) EVF_ON_H
(1) LOAD
(1) E2SBT
(1) E2SBO
(1) UART1
(1) UART0
(1) VTR_TEST
(1) OSD_L
(1) LCDM5V
(3) V_OFF
(3) MON_OPEN
(3) MON_MIRROR
(1) L/R_CONT
(1) U/D_CONT
(1) BL_BRIGHT
QR6101 UN5111-TX
LN043572P D6101
R6106 1000/J6
-7V
R6125 0/J3
R6128 0/J3
+9V
IC6102 BA6138F-T1
OUT1 NC MUT VCC NC OUT2 NC DET1 IN1 GND NC IN2 NC DET2
C6107 16V10/EHB
A_SIG_CH1 (1)
A_SIG_CH2 (1)
R6116 0/J3
R6114 0/J3
R6119 10K/J3
R6123 47K/J3
C6104 25V4R7/EHB
C6106 25V4R7/EHB
R6129 47K/J3
R6134 10K/J3
R6164 100K/J3
R6165 100K/J3
R6166 100K/J3
LCNT3V C6108 0.1/UFV IC6104 TVHC126FTEL
LCNT5V C6109 0.1/UFV IC6105 TVHT126FTEL
LCNT5V C6110 0.1/UFV IC6106 TVHT125FTEL
A B C D E F G H I J
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

COMPONENT NAME	LCD CONTROL	02/03
CIRCUIT BOARD NO.	DRAWING NO.	
VEP06E27	KR6U12	
	SCM028	


LCNT5V
100U/LC
L6201
C6201
16V10/ST
C6202
0.1/UFV
Q6201
2SD1819AQRTX
R6209
2700/J3
47/J3
R6211
(1) LCD_B-Y
B-Y (1)
R6201
100K/J3
47/J3
R6203
R6206
1200/J3
Q6203
2SB1218AQRTX
R6207
820/J3
R-Y (1)
R6213
100K/J3
47/J3
R6215
Q6205
2SD1819AQRTX
R6219
1500/J3
R6220
820/J3
R6223
2700/J3
47/J3
R6225
(1) LCD_R-Y
Q6207
2SB1218AQRTX
(1) LCD_Y
(1) MIRROR
(1) LCD_OPEN
H3V
C6204
0.1/UFV
10K/J3
R6212
33K/J3
R6214
Q6204
2SD1819AQRTX
33K/J3
R6216
10K/J3
R6217
33K/J3
R6218
Q6206
2SD1819AQRTX
33K/J3
R6221
Q6208
2SD1819AQRTX
33K/J3
R6224
Q6210
XN1501-TX
1
2
3
4
5
R6204
8200/J3
R6208
2700/J3
C6203
0.1/UFV
47/J3
R6210
Y (1)
1000/J3
R6202
R6205
1200/J3
Q6202
2SB1218AQRTX
V_OFF (2)
QR6201
UN5213-TX
SCAN1 (1)
LCD/EVF (1)
LCNT5V
FACEF (1)
Q6209
2SD1819AQRTX
33K/J3
R6226
33K/J3
R6222
Q6211
2SD1819AQRTX
33K/J3
R6228
33K/J3
R6227
(2) MON_OPEN
(2) MON_MIRROR
A
B
C
D
E
F
G
H
I
J
1
2
3
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6
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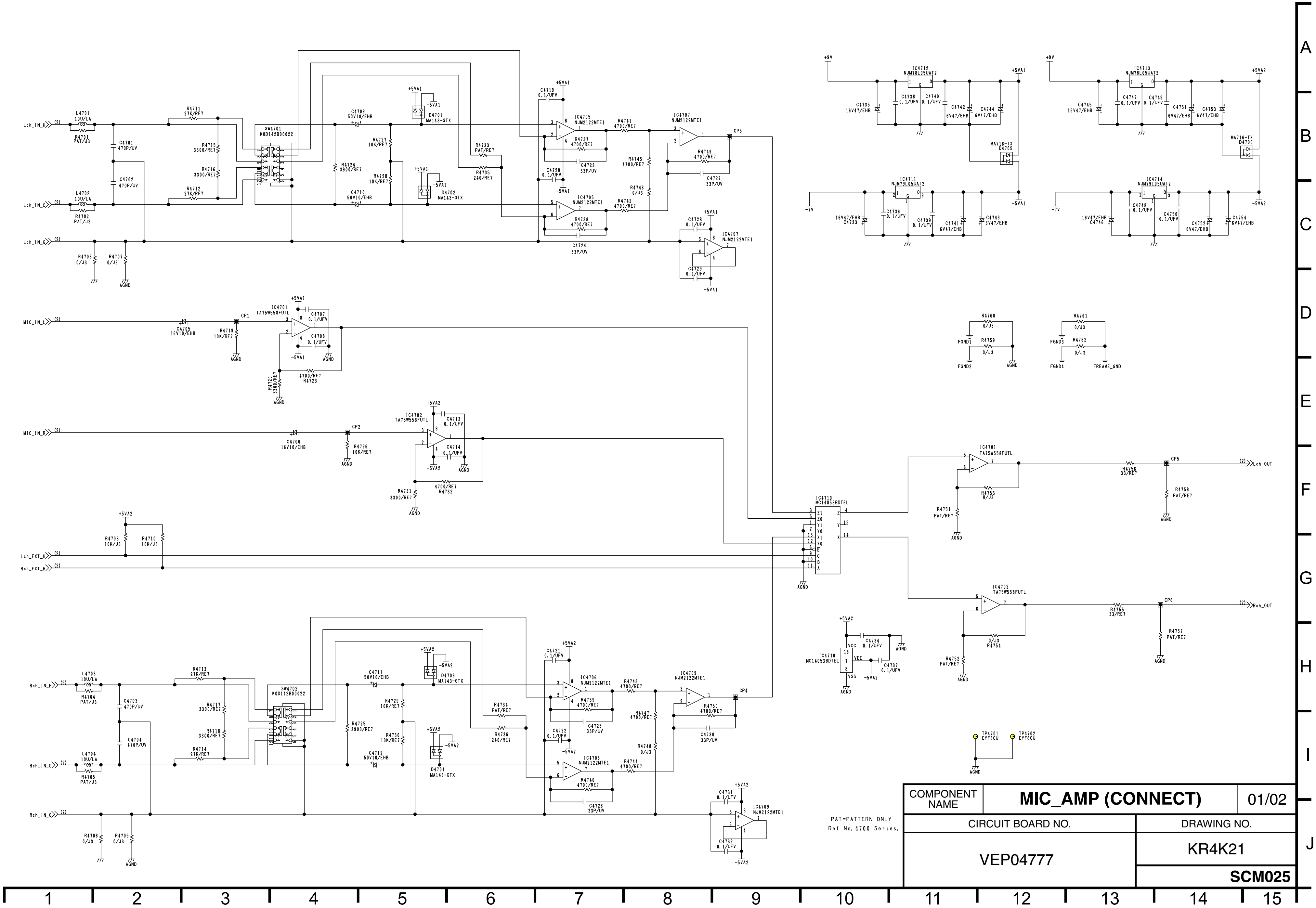
PAT=PATTERN ONLY

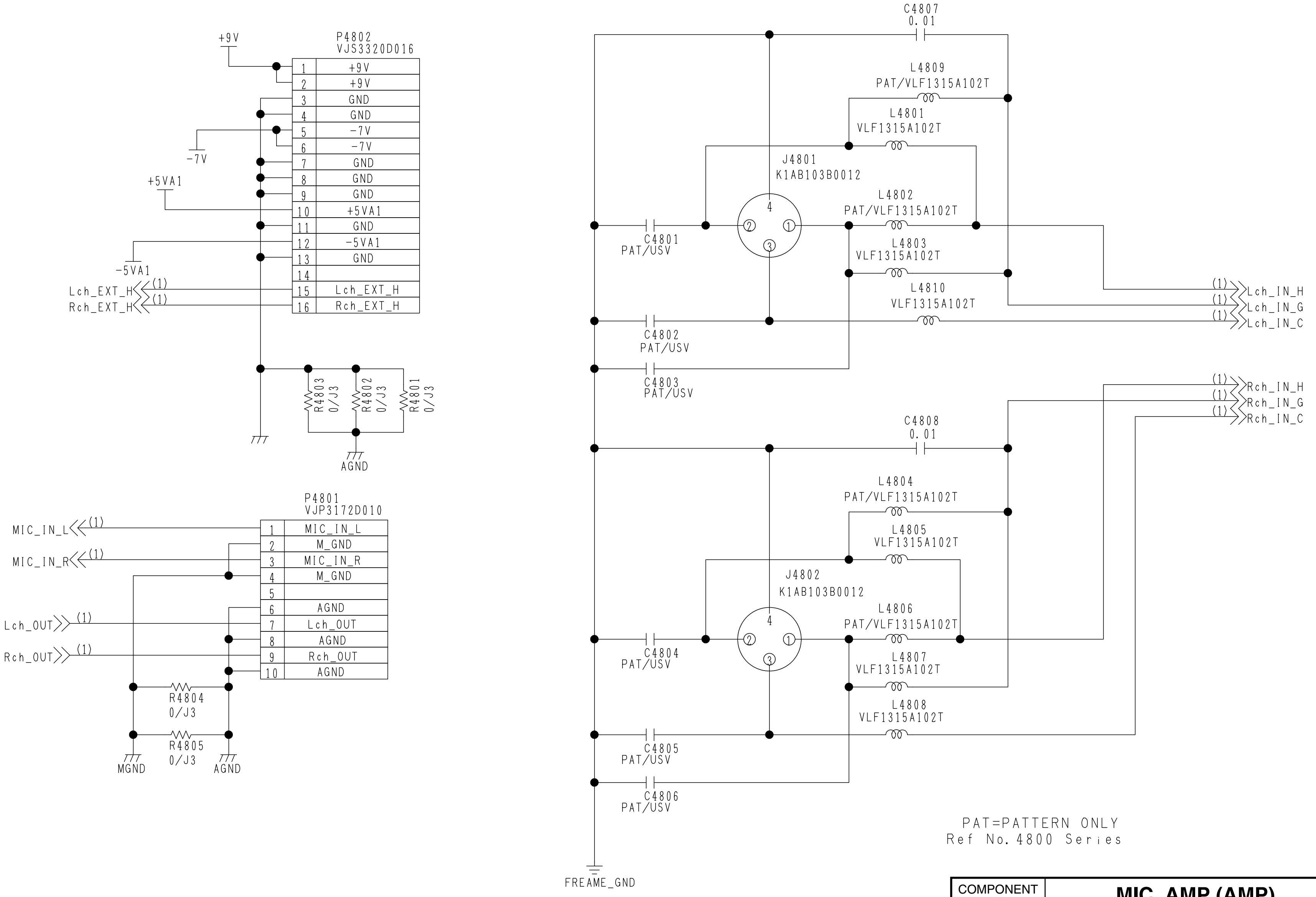
Ref No.6200 Series.

COMPONENT NAME	LCD CONTROL	03/03
CIRCUIT BOARD NO.		DRAWING NO.
VEP06E27		KR6U12 SCM029


Lch_IN_H
Lch_IN_C
Lch_IN_G
L4701 10U/LA
R4701 PAT/J3
L4702 10U/LA
R4702 PAT/J3
C4701 470P/UV
C4702 470P/UV
R4703 0/J3
R4707 0/J3
AGND
R4711 27K/RE7
R4712 27K/RE7
R4715 3300/RE7
R4716 3300/RE7
SW4701 K0D142B00022
C4709 50V10/EHB
C4710 50V10/EHB
R4724 3900/RE7
R4727 10K/RE7
R4728 10K/RE7
+5VA1
-5VA1
D4701 MA143-GTX
D4702 MA143-GTX
R4733 PAT/RE7
R4735 240/RE7
C4719 0.1/UFV
C4720 0.1/UFV
IC4705 NJM2122MTE1
R4737 4700/RE7
C4723 33P/UV
R4738 4700/RE7
C4724 33P/UV
R4741 4700/RE7
R4742 4700/RE7
R4745 4700/RE7
R4746 0/J3
IC4707 NJM2122MTE1
R4749 4700/RE7
C4727 33P/UV
CP3
C4728 0.1/UFV
C4729 0.1/UFV
MIC_IN_L
C4705 16V10/EHB
CP1
R4719 10K/RE7
IC4701 TA75W558FUTL
C4707 0.1/UFV
C4708 0.1/UFV
R4720 3300/RE7
4700/RE7 R4723
MIC_IN_R
C4706 16V10/EHB
CP2
R4726 10K/RE7
IC4702 TA75W558FUTL
+5VA2
-5VA2
C4713 0.1/UFV
C4714 0.1/UFV
R4731 3300/RE7
4700/RE7 R4732
R4708 10K/J3
R4710 10K/J3
Lch_EXT_H
Rch_EXT_H
IC4710 MC14053BDTEL
Z1 Z0 Y1 Y0 X1 X0 E C B A Z Y X
IC4701 TA75W558FUTL
R4756 33/RE7
CP5
Lch_OUT
R4758 PAT/RE7
R4753 0/J3
R4751 PAT/RE7
IC4702 TA75W558FUTL
R4755 33/RE7
CP6
Rch_OUT
R4757 PAT/RE7
0/J3 R4754
R4752 PAT/RE7
C4734 0.1/UFV
C4737 0.1/UFV
VCC VEE VSS
TP4701 EYF6CU
TP4702 EYF6CU
+9V
IC4712 NJM78L05UAT2
C4735 16V47/EHB
C4738 0.1/UFV
C4740 0.1/UFV
C4742 6V47/EHB
C4744 6V47/EHB
MA716-TX D4705
IC4711 NJM79L05UAT2
-7V
C4733 16V47/EHB
C4736 0.1/UFV
C4739 0.1/UFV
C4741 6V47/EHB
C4743 6V47/EHB
IC4713 NJM78L05UAT2
C4745 16V47/EHB
C4747 0.1/UFV
C4749 0.1/UFV
C4751 6V47/EHB
C4753 6V47/EHB
MA716-TX D4706
IC4714 NJM79L05UAT2
C4746 16V47/EHB
C4748 0.1/UFV
C4750 0.1/UFV
C4752 6V47/EHB
C4754 6V47/EHB
R4760 0/J3
R4759 0/J3
FGND1
FGND2
R4761 0/J3
R4762 0/J3
FGND3
FGND4
FREAME_GND
Rch_IN_H
Rch_IN_C
Rch_IN_G
L4703 10U/LA
R4704 PAT/J3
L4704 10U/LA
R4705 PAT/J3
C4703 470P/UV
C4704 470P/UV
R4706 0/J3
R4709 0/J3
R4713 27K/RE7
R4714 27K/RE7
R4717 3300/RE7
R4718 3300/RE7
SW4702 K0D142B00022
C4711 50V10/EHB
C4712 50V10/EHB
R4725 3900/RE7
R4729 10K/RE7
R4730 10K/RE7
D4703 MA143-GTX
D4704 MA143-GTX
R4734 PAT/RE7
R4736 240/RE7
C4721 0.1/UFV
C4722 0.1/UFV
IC4706 NJM2122MTE1
R4739 4700/RE7
C4725 33P/UV
R4740 4700/RE7
C4726 33P/UV
R4743 4700/RE7
R4744 4700/RE7
R4747 4700/RE7
R4748 0/J3
IC4709 NJM2122MTE1
R4750 4700/RE7
C4730 33P/UV
CP4
C4731 0.1/UFV
C4732 0.1/UFV
A B C D E F G H I J
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

PAT=PATTERN ONLY
Ref No. 4700 Series.

COMPONENT NAME	MIC_AMP (CONNECT)	01/02
CIRCUIT BOARD NO.	DRAWING NO.	
VEP04777	KR4K21	
	SCM025	


+9V
P4802
VJS3320D016
1 +9V
2 +9V
3 GND
4 GND
5 -7V
6 -7V
7 GND
8 GND
9 GND
10 +5VA1
11 GND
12 -5VA1
13 GND
14
15 Lch_EXT_H
16 Rch_EXT_H
-7V
+5VA1
-5VA1
Lch_EXT_H (1)
Rch_EXT_H (1)
R4803 0/J3
R4802 0/J3
R4801 0/J3
AGND
P4801
VJP3172D010
1 MIC_IN_L
2 M_GND
3 MIC_IN_R
4 M_GND
5
6 AGND
7 Lch_OUT
8 AGND
9 Rch_OUT
10 AGND
MIC_IN_L (1)
MIC_IN_R (1)
Lch_OUT (1)
Rch_OUT (1)
R4804 0/J3
R4805 0/J3
MGND
AGND
C4807 0.01
L4809 PAT/VLF1315A102T
L4801 VLF1315A102T
J4801 K1AB103B0012
L4802 PAT/VLF1315A102T
C4801 PAT/USV
L4803 VLF1315A102T
L4810 VLF1315A102T
C4802 PAT/USV
C4803 PAT/USV
(1) Lch_IN_H
(1) Lch_IN_G
(1) Lch_IN_C
(1) Rch_IN_H
(1) Rch_IN_G
(1) Rch_IN_C
C4808 0.01
L4804 PAT/VLF1315A102T
L4805 VLF1315A102T
J4802 K1AB103B0012
L4806 PAT/VLF1315A102T
C4804 PAT/USV
L4807 VLF1315A102T
L4808 VLF1315A102T
C4805 PAT/USV
C4806 PAT/USV
FREAME_GND
A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
8
9
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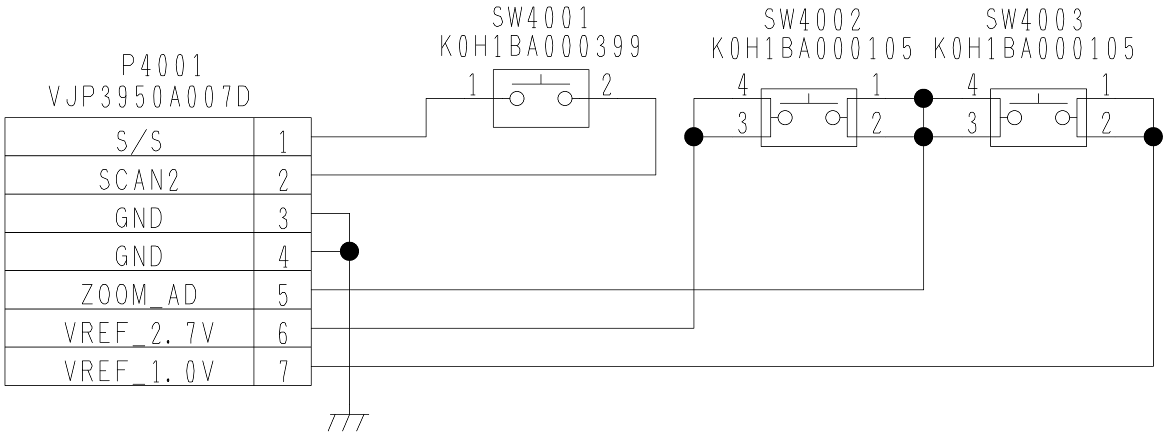
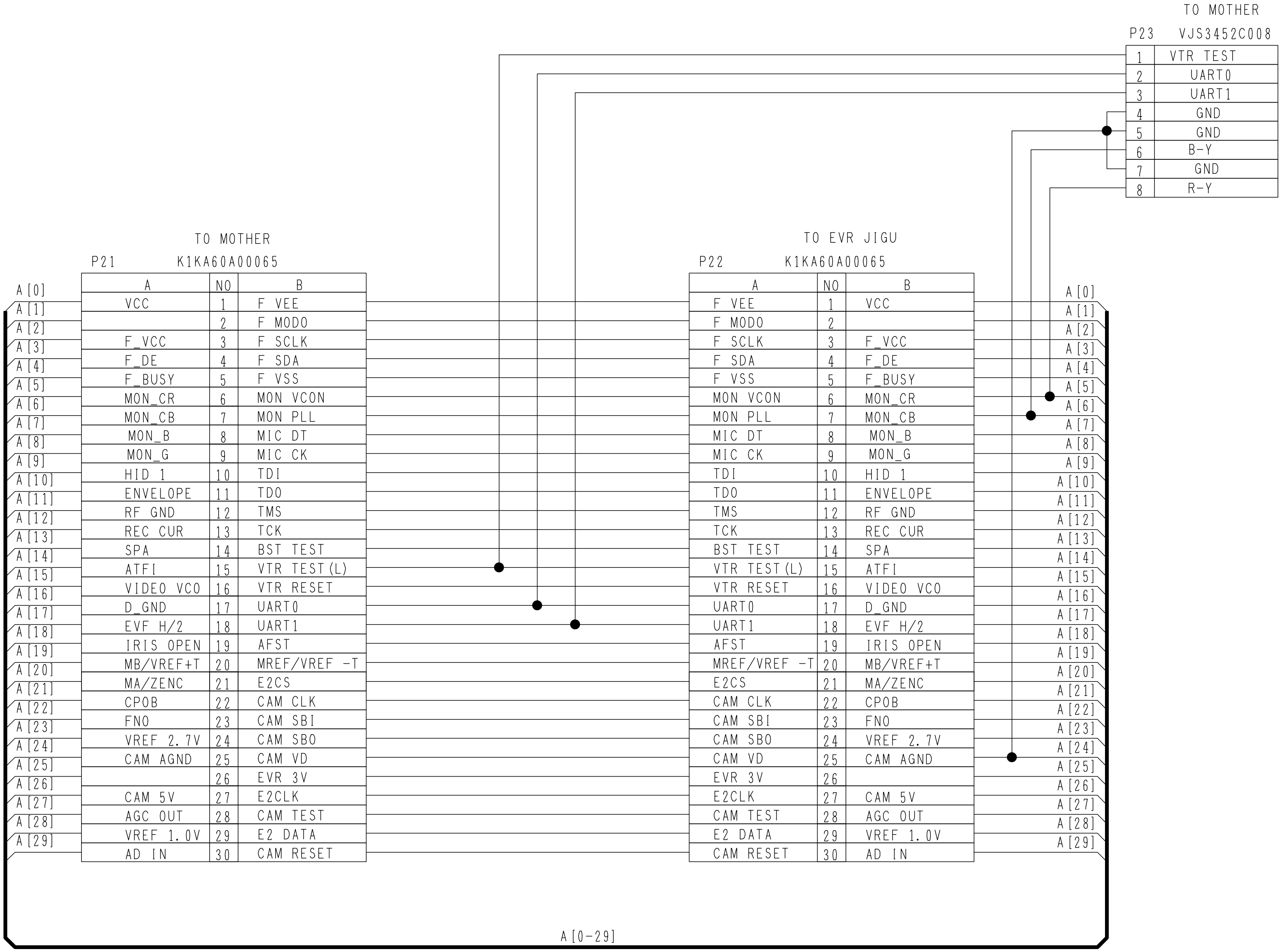
PAT=PATTERN ONLY
Ref No.4800 Series

COMPONENT NAME	MIC_AMP (AMP)	02/02
CIRCUIT BOARD NO.	DRAWING NO.	
VEP04777	KR4K21	
	SCM026	


P4001
VJP3950A007D
S/S
SCAN2
GND
GND
ZOOM_AD
VREF_2.7V
VREF_1.0V
1
2
3
4
5
6
7
SW4001
K0H1BA000399
SW4002
K0H1BA000105
SW4003
K0H1BA000105

Ref No.4000 series.

COMPONENT NAME	HANDLE_ZOOM	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000T7	KR0Q06	
	SCM024	



TO MOTHER

P23 VJS3452C008

1	VTR TEST
2	UART0
3	UART1
4	GND
5	GND
6	B-Y
7	GND
8	R-Y

TO MOTHER

P21 K1KA60A00065

A	NO	B
VCC	1	F VEE
	2	F MODO
F_VCC	3	F SCLK
F_DE	4	F SDA
F_BUSY	5	F VSS
MON_CR	6	MON VCON
MON_CB	7	MON PLL
MON_B	8	MIC DT
MON_G	9	MIC CK
HID 1	10	TDI
ENVELOPE	11	TDO
RF GND	12	TMS
REC CUR	13	TCK
SPA	14	BST TEST
ATFI	15	VTR TEST(L)
VIDEO VCO	16	VTR RESET
D_GND	17	UART0
EVF H/2	18	UART1
IRIS OPEN	19	AFST
MB/VREF+T	20	MREF/VREF -T
MA/ZENC	21	E2CS
CPOB	22	CAM CLK
FNO	23	CAM SBI
VREF 2.7V	24	CAM SBO
CAM AGND	25	CAM VD
	26	EVR 3V
CAM 5V	27	E2CLK
AGC OUT	28	CAM TEST
VREF 1.0V	29	E2 DATA
AD IN	30	CAM RESET

TO EVR JIGU

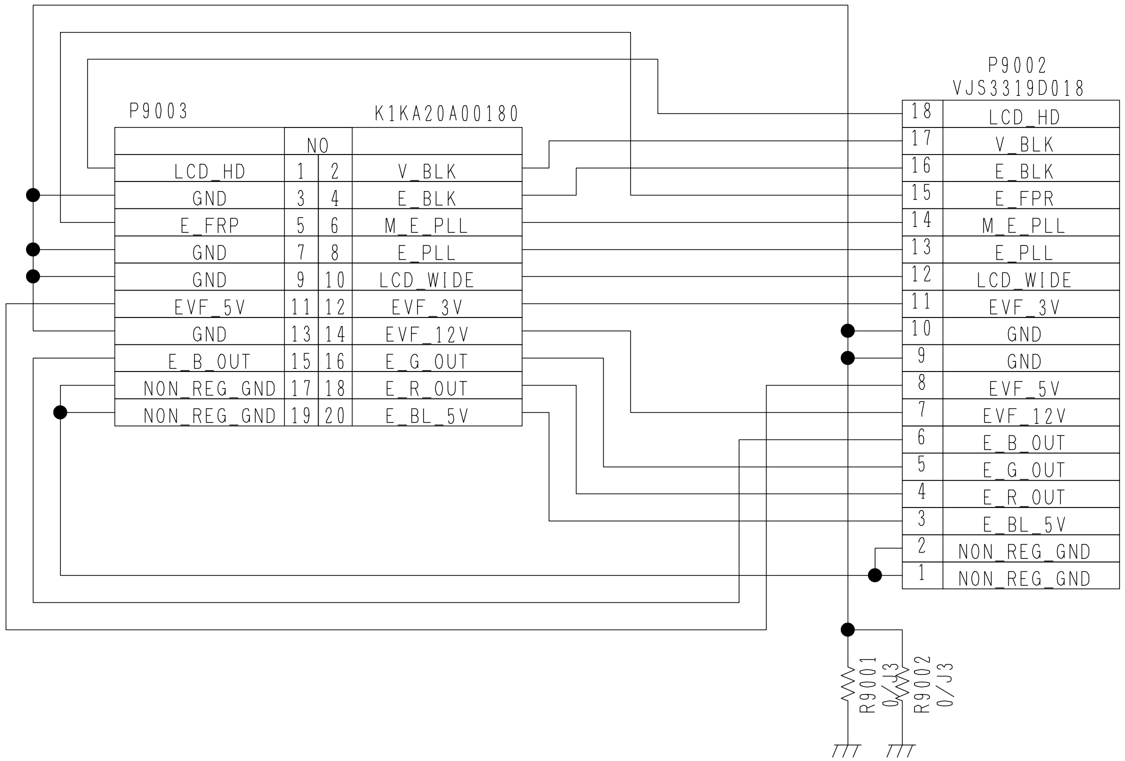
P22 K1KA60A00065

A	NO	B
F VEE	1	VCC
F MODO	2	
F SCLK	3	F_VCC
F SDA	4	F_DE
F VSS	5	F_BUSY
MON VCON	6	MON_CR
MON PLL	7	MON_CB
MIC DT	8	MON_B
MIC CK	9	MON_G
TDI	10	HID 1
TDO	11	ENVELOPE
TMS	12	RF GND
TCK	13	REC CUR
BST TEST	14	SPA
VTR TEST(L)	15	ATFI
VTR RESET	16	VIDEO VCO
UART0	17	D_GND
UART1	18	EVF H/2
AFST	19	IRIS OPEN
MREF/VREF -T	20	MB/VREF+T
E2CS	21	MA/ZENC
CAM CLK	22	CPOB
CAM SBI	23	FNO
CAM SBO	24	VREF 2.7V
CAM VD	25	CAM AGND
EVR 3V	26	
E2CLK	27	CAM 5V
CAM TEST	28	AGC OUT
E2 DATA	29	VREF 1.0V
CAM RESET	30	AD IN

COMPONENT NAME	**EVR EXT**	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP000T8		KR0Q61
		SCM023

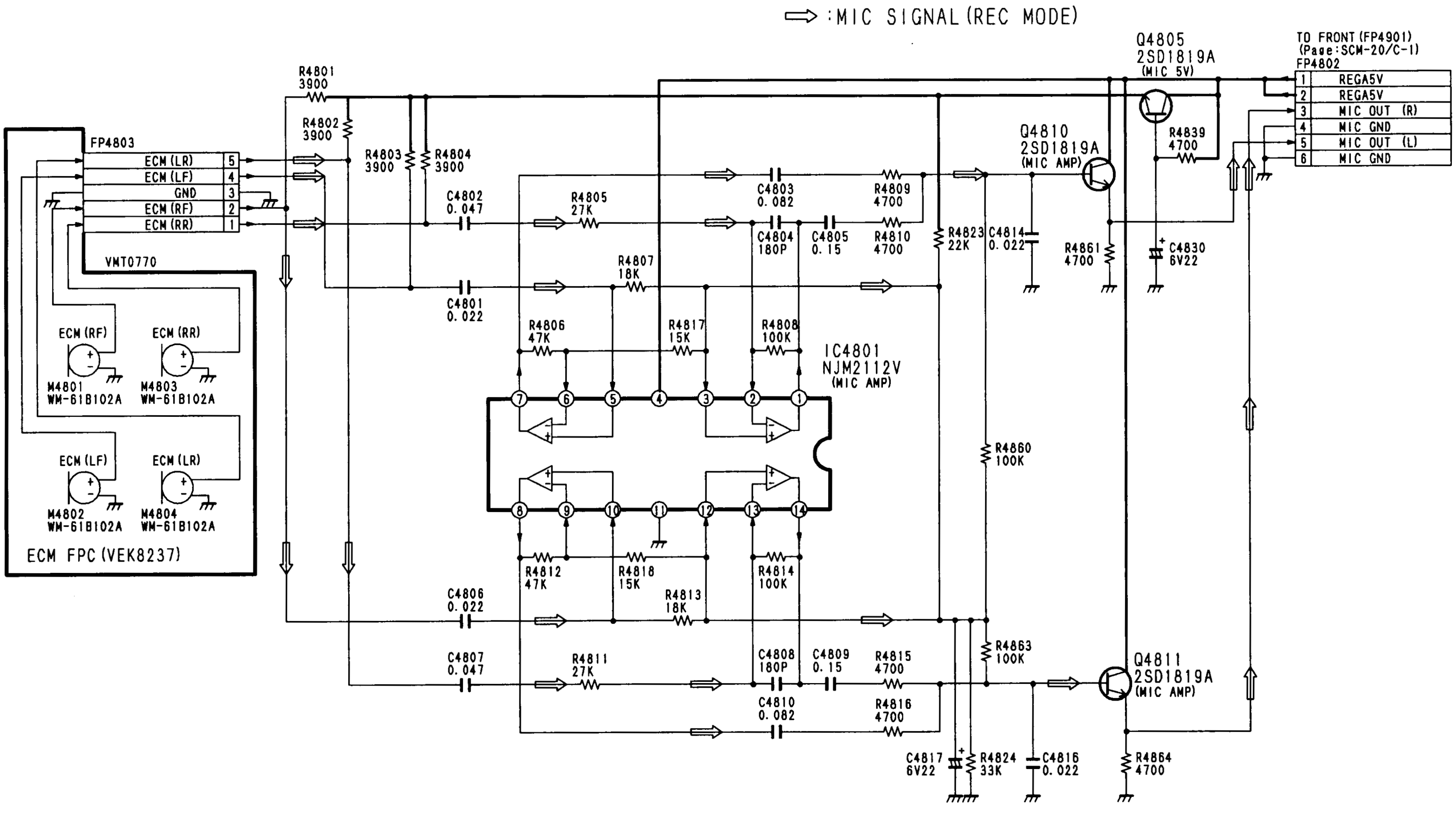
A B C D E F G H I J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15


P9003
K1KA20A00180
NO
LCD_HD 1 2 V_BLK
GND 3 4 E_BLK
E_FRP 5 6 M_E_PLL
GND 7 8 E_PLL
GND 9 10 LCD_WIDE
EVF_5V 11 12 EVF_3V
GND 13 14 EVF_12V
E_B_OUT 15 16 E_G_OUT
NON_REG_GND 17 18 E_R_OUT
NON_REG_GND 19 20 E_BL_5V
P9002
VJS3319D018
18 LCD_HD
17 V_BLK
16 E_BLK
15 E_FPR
14 M_E_PLL
13 E_PLL
12 LCD_WIDE
11 EVF_3V
10 GND
9 GND
8 EVF_5V
7 EVF_12V
6 E_B_OUT
5 E_G_OUT
4 E_R_OUT
3 E_BL_5V
2 NON_REG_GND
1 NON_REG_GND
R9001
0/J3
R9002
0/J3

Ref No.9000 Series.

COMPONENT NAME	EVF 2	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000U4	KR0Q68 **SCM022**	


⇨ :MIC SIGNAL (REC MODE)
R4801 3900
R4802 3900
R4803 3900
R4804 3900
FP4803
ECM (LR) 5
ECM (LF) 4
GND 3
ECM (RF) 2
ECM (RR) 1
VMT0770
ECM (RF)
ECM (RR)
M4801 WM-61B102A
M4803 WM-61B102A
ECM (LF)
ECM (LR)
M4802 WM-61B102A
M4804 WM-61B102A
ECM FPC (VEK8237)
C4802 0.047
C4801 0.022
R4805 27K
R4807 18K
R4806 47K
R4817 15K
R4808 100K
C4803 0.082
C4804 180P
C4805 0.15
R4809 4700
R4810 4700
R4823 22K
C4814 0.022
IC4801
NJM2112V
(MIC AMP)
1
2
3
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6
7
8
9
10
11
12
13
14
R4860 100K
R4812 47K
R4818 15K
R4814 100K
C4806 0.022
R4813 18K
C4807 0.047
R4811 27K
C4808 180P
C4809 0.15
R4815 4700
C4810 0.082
R4816 4700
R4863 100K
C4817 6V22
R4824 33K
C4816 0.022
Q4811
2SD1819A
(MIC AMP)
R4864 4700
Q4810
2SD1819A
(MIC AMP)
R4861 4700
Q4805
2SD1819A
(MIC 5V)
R4839 4700
C4830 6V22
TO FRONT (FP4901)
(Page:SCM-20/C-1)
FP4802
1 REGA5V
2 REGA5V
3 MIC OUT (R)
4 MIC GND
5 MIC OUT (L)
6 MIC GND
A
B
C
D
E
F
G
H
I
J
1
2
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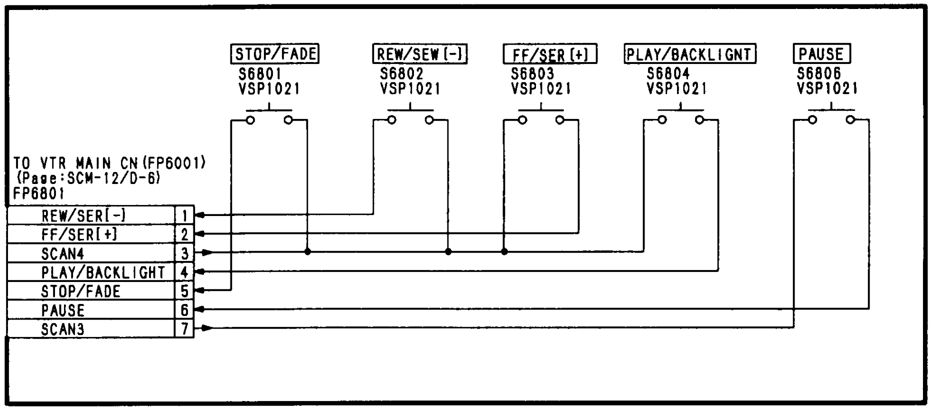
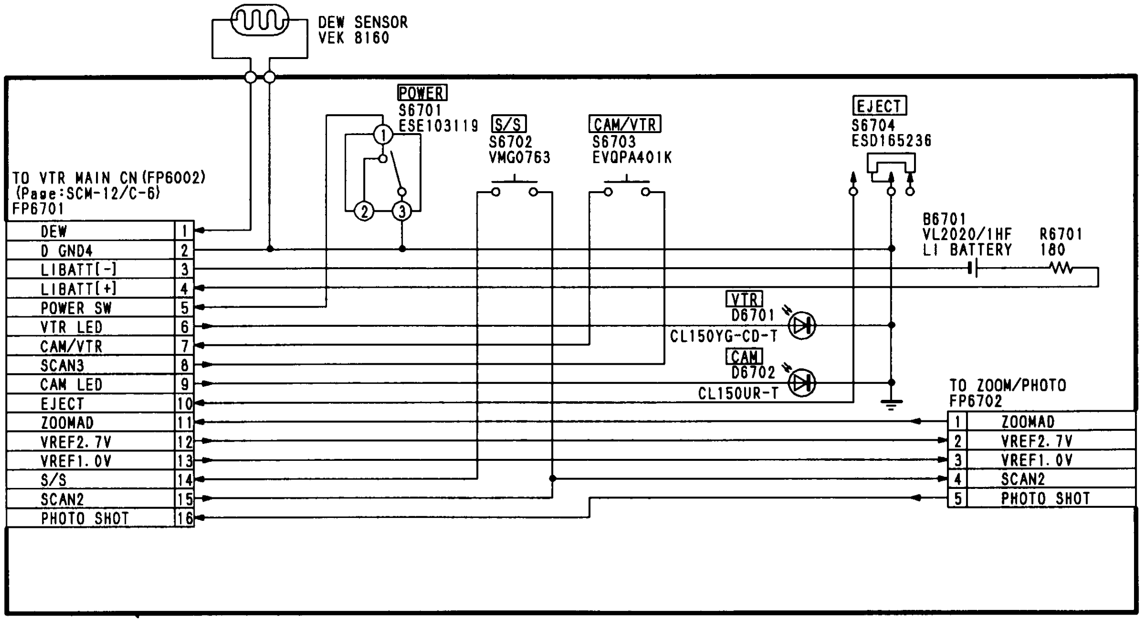
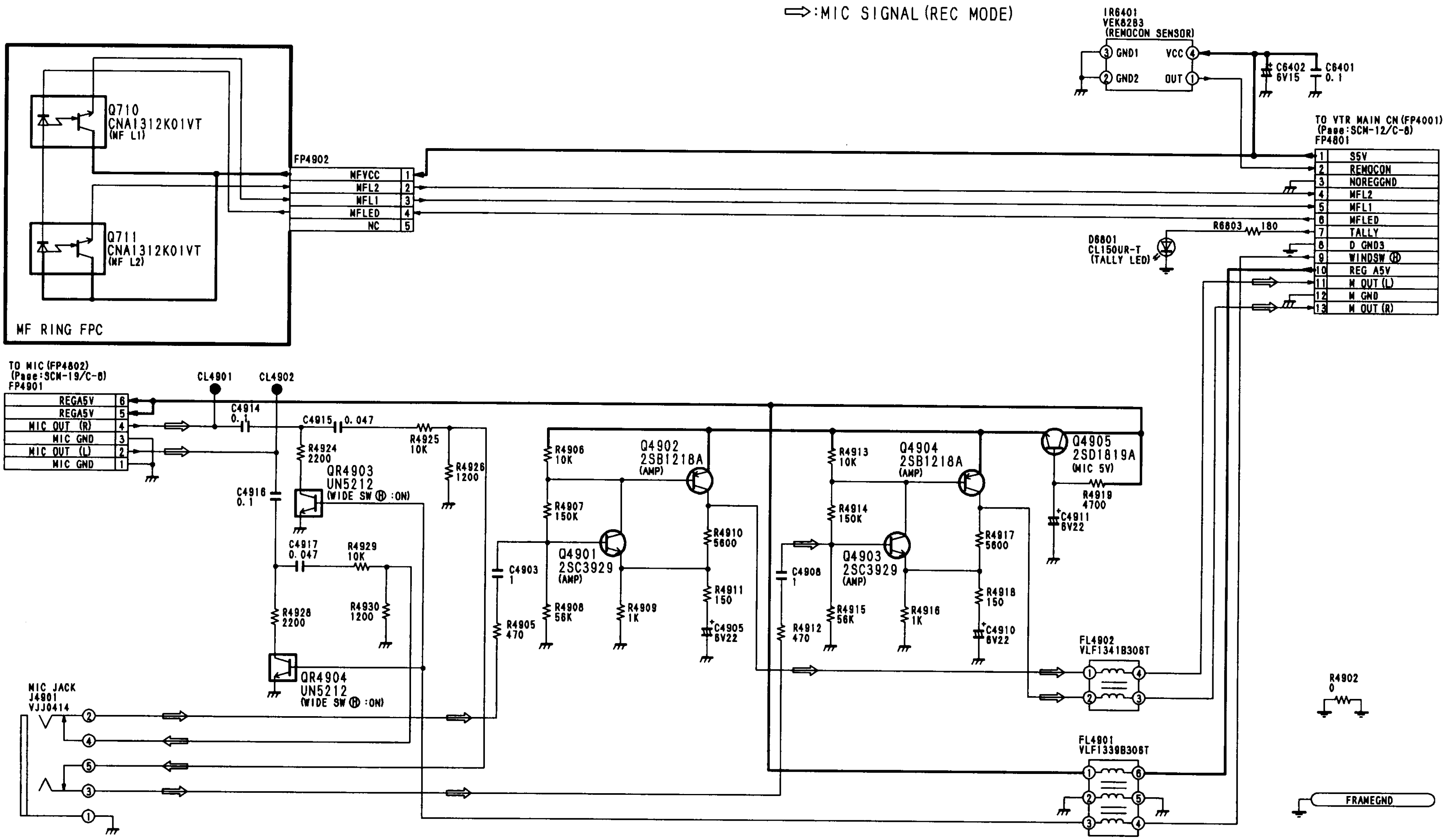
COMPONENT NAME	MIC	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP04693		
	SCM021	


STOP/FADE
S6801
VSP1021
REW/SEW[-]
S6802
VSP1021
FF/SER[+]
S6803
VSP1021
PLAY/BACKLIGNT
S6804
VSP1021
PAUSE
S6806
VSP1021
TO VTR MAIN CN(FP6001)
(Page:SCM-12/D-6)
FP6801
1 REW/SER[-]
2 FF/SER[+]
3 SCAN4
4 PLAY/BACKLIGHT
5 STOP/FADE
6 PAUSE
7 SCAN3

COMPONENT NAME	TOP OPERATION	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP06C24	SCM020	


DEW SENSOR
VEK 8160
POWER
S6701
ESE103119
①
②
③
S/S
S6702
VMG0763
CAM/VTR
S6703
EVQPA401K
EJECT
S6704
ESD165236
TO VTR MAIN CN(FP6002)
(Page:SCM-12/C-6)
FP6701
1 DEW
2 D GND4
3 LIBATT[-]
4 LIBATT[+]
5 POWER SW
6 VTR LED
7 CAM/VTR
8 SCAN3
9 CAM LED
10 EJECT
11 ZOOMAD
12 VREF2.7V
13 VREF1.0V
14 S/S
15 SCAN2
16 PHOTO SHOT
B6701
VL2020/1HF
LI BATTERY
R6701
180
VTR
D6701
CL150YG-CD-T
CAM
D6702
CL150UR-T
TO ZOOM/PHOTO
FP6702
1 ZOOMAD
2 VREF2.7V
3 VREF1.0V
4 SCAN2
5 PHOTO SHOT

COMPONENT NAME	REAR OPERATION	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP06C37	SCM020	


⇨:MIC SIGNAL (REC MODE)
IR6401
VEK8283
(REMOCON SENSOR)
GND1
GND2
VCC
OUT
C6402 6V15
C6401 0.1
TO VTR MAIN CN (FP4001)
(Page:SCM-12/C-8)
FP4801
1 S5V
2 REMOCON
3 NOREGGND
4 MFL2
5 MFL1
6 MFLED
7 TALLY
8 D GND3
9 WINDSW Ⓗ
10 REG A5V
11 M OUT (L)
12 M GND
13 M OUT (R)
R6803 180
D6801
CL150UR-T
(TALLY LED)
Q710
CNA1312K01VT
(MF L1)
Q711
CNA1312K01VT
(MF L2)
MF RING FPC
FP4902
1 MFVCC
2 MFL2
3 MFL1
4 MFLED
5 NC
TO MIC (FP4802)
(Page:SCN-19/C-8)
FP4901
6 REGA5V
5 REGA5V
4 MIC OUT (R)
3 MIC GND
2 MIC OUT (L)
1 MIC GND
CL4901
CL4902
C4914 0.1
C4915 0.047
R4924 2200
R4925 10K
R4926 1200
QR4903
UN5212
(WIDE SW Ⓗ :ON)
C4916 0.1
C4917 0.047
R4929 10K
R4930 1200
R4928 2200
QR4904
UN5212
(WIDE SW Ⓗ :ON)
MIC JACK
J4901
VJJ0414
C4903 1
R4905 470
R4906 10K
R4907 150K
R4908 56K
R4909 1K
Q4901
2SC3929
(AMP)
Q4902
2SB1218A
(AMP)
R4910 5600
R4911 150
C4905 6V22
C4908 1
R4912 470
R4913 10K
R4914 150K
R4915 56K
R4916 1K
Q4903
2SC3929
(AMP)
Q4904
2SB1218A
(AMP)
R4917 5600
R4918 150
C4910 6V22
Q4905
2SD1819A
(MIC 5V)
R4919 4700
C4911 6V22
FL4902
VLF1341B306T
FL4901
VLF1339B306T
R4902 0
FRAMEGND
A
B
C
D
E
F
G
H
I
J
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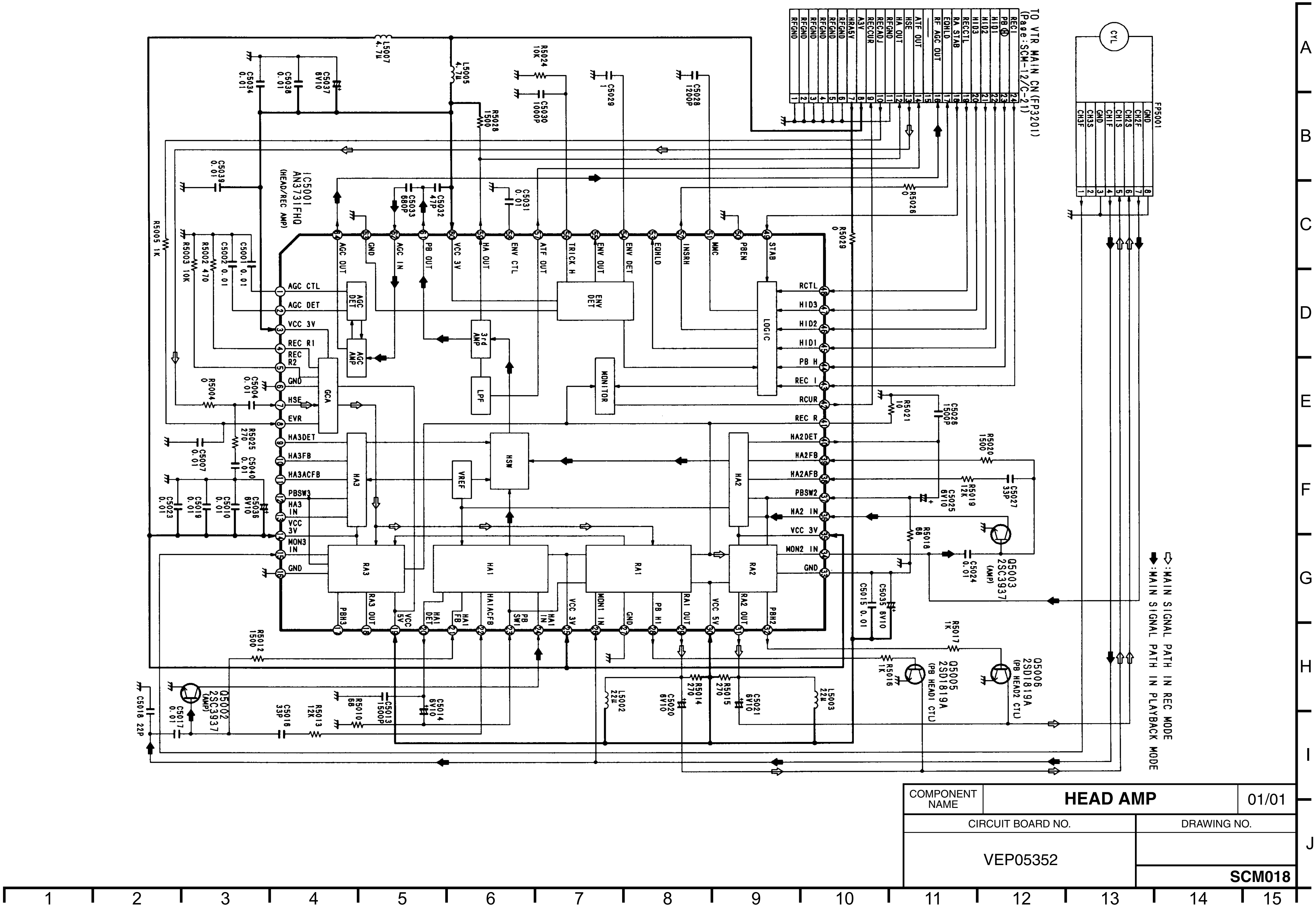
COMPONENT NAME	FRONT	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP04684		SCM019



TO VTR MAIN CN (FP3201) (Page:SCM-12/C-21)
RFGND
HRA5V
A3V
RECCUR
RECADJ
HA OUT
HSE
ATF OUT
RF AGC OUT
EQHLD
RA STAB
RECCTL
HID3
HID2
HID1
PB H
REC I
CYL
FP5001
GND
CH2F
CH2S
CH1S
CH1F
CH3S
CH3F
IC5001
AN3731FHQ
(HEAD/REC AMP)
AGC DET
AGC AMP
GCA
ENV DET
3rd AMP
LPF
MONITOR
LOGIC
HSW
VREF
HA3
HA2
RA3
HA1
RA1
RA2
AGC CTL
VCC 3V
REC R1
REC R2
GND
HSE
EVR
HA3DET
HA3FB
HA3ACFB
PBSW3
HA3 IN
MON3 IN
AGC OUT
AGC IN
PB OUT
HA OUT
ENV CTL
ATF OUT
TRICK H
ENV OUT
ENV DET
EQHLD
INSRH
MMC
PBEN
STAB
RCTL
HID3
HID2
HID1
PB H
REC I
RCUR
REC R
HA2DET
HA2FB
HA2AFB
PBSW2
HA2 IN
MON2 IN
PBH3
RA3 OUT
VCC 5V
HA1 DET
HA1 FB
HA1ACFB
PB SW1
HA1 IN
MON1 IN
PB H1
RA1 OUT
RA2 OUT
PBH2
L5007 4.7µ
L5005 4.7µ
L5002 22µ
L5003 22µ
C5034 0.01
C5038 0.01
C5037 6V10
C5039 0.01
C5033 680P
C5032 47P
C5031 0.01
C5030 1000P
C5029 1
C5028 1200P
C5001 0.01
C5002 0.01
C5004 0.01
C5007 0.01
C5040 0.01
C5023 0.01
C5019 0.01
C5010 0.01
C5036 6V10
C5026 1500P
C5027 33P
C5025 6V10
C5024 0.01
C5035 6V10
C5015 0.01
C5018 22P
C5017 0.01
C5016 33P
C5013 1500P
C5014 6V10
C5020 6V10
C5021 6V10
R5024 10K
R5028 150
R5026 0
R5029 0
R5005 1K
R5003 10K
R5002 470
R5004 0
R5025 270
R5021 10
R5020 1500
R5019 12K
R5018 68
R5017 1K
R5016 1K
R5012 1500
R5013 12K
R5010 68
R5014 270
R5015 270
Q5003 2SC3937 (AMP)
Q5002 2SC3937 (AMP)
Q5005 2SD1819A (PB HEAD1 CTL)
Q5006 2SD1819A (PB HEAD2 CTL)
⇩ : MAIN SIGNAL PATH IN REC MODE
⬇ : MAIN SIGNAL PATH IN PLAYBACK MODE
A
B
C
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G
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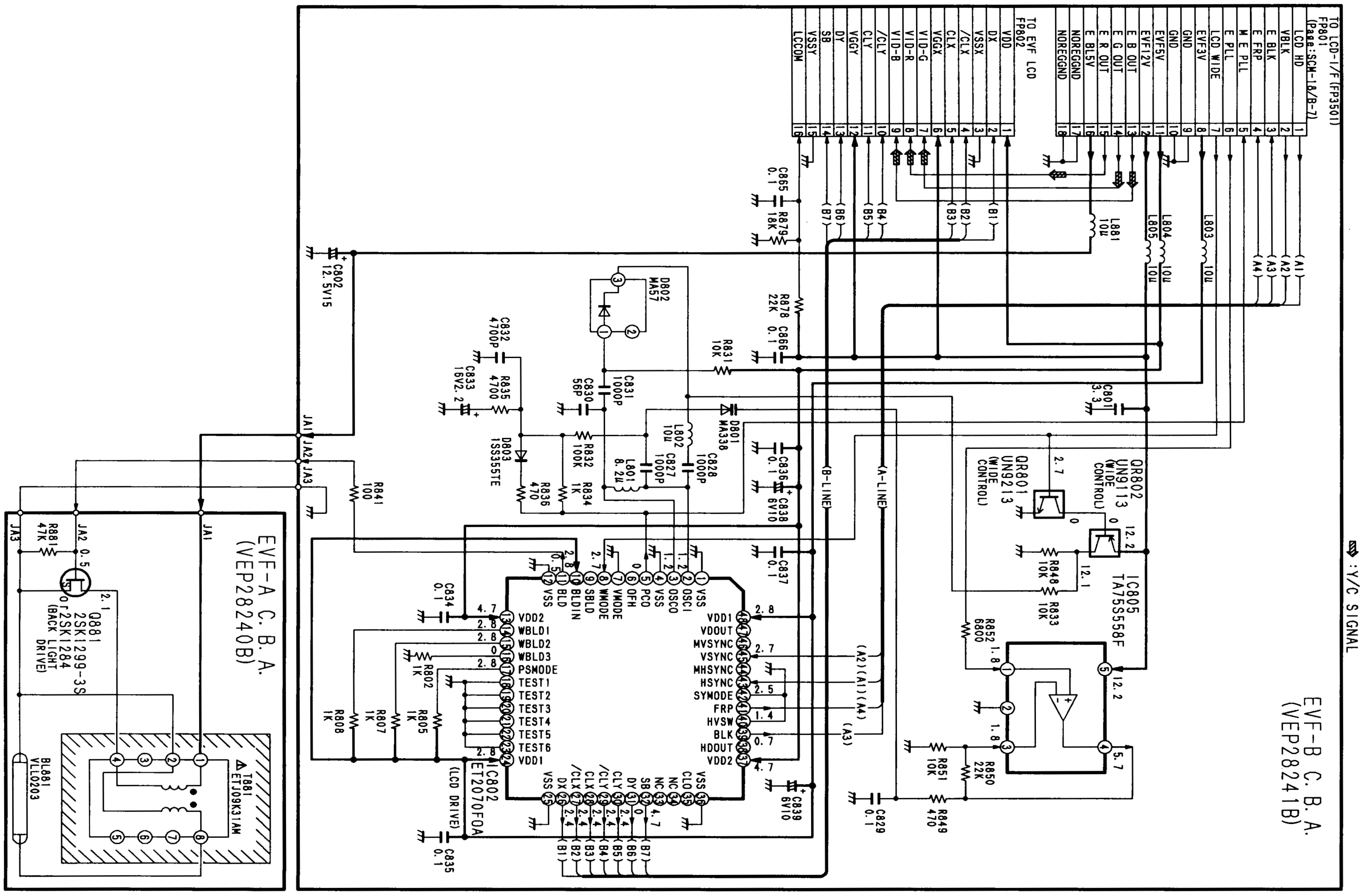
COMPONENT NAME	HEAD AMP	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP05352		SCM018


EVF-A C.B.A. (VEP28240B)
EVF-B C.B.A. (VEP28241B)
TO EVF LCD FP802
VDD
DX
VSSX
/CLX
CLX
VGGX
VID-G
VID-R
VID-B
/CLY
CLY
VGGY
DY
SB
VSSY
LCCOM
TO LCD-I/F (FP3501) FP801 (Page:SCM-18/B-7)
LCD HD
VBLK
E BLK
E FRP
M E PLL
E PLL
LCD WIDE
EVF3V
GND
EVF5V
EVF12V
E B OUT
E G OUT
E R OUT
E BL5V
NOREGGND
IC802 ET2070F0A (LCD DRIVE)
IC805 TA75558F
QR801 UN9213 (WIDE CONTROL)
QR802 UN9113 (WIDE CONTROL)
Q881 2SK1299-3S or 2SK1284 (BACK LIGHT DRIVE)
T881 ETJ09K31AM
BL881 VLL0203
D801 MA338
D802 MA57
D803 1SS355TE
(B-LINE)
(A-LINE)
⇩ :Y/C SIGNAL
A
B
C
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E
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G
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I
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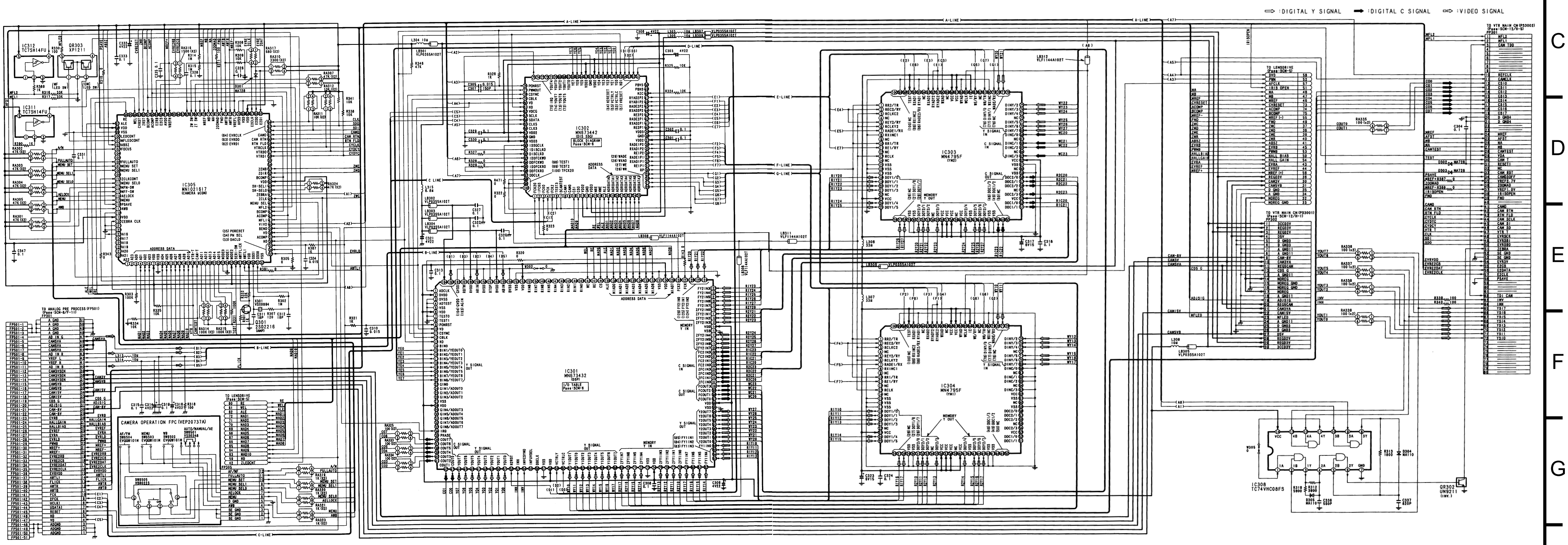
COMPONENT NAME	E.V.F.(A) & E.V.F.(B)	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP28240 VEP28241		SCM017

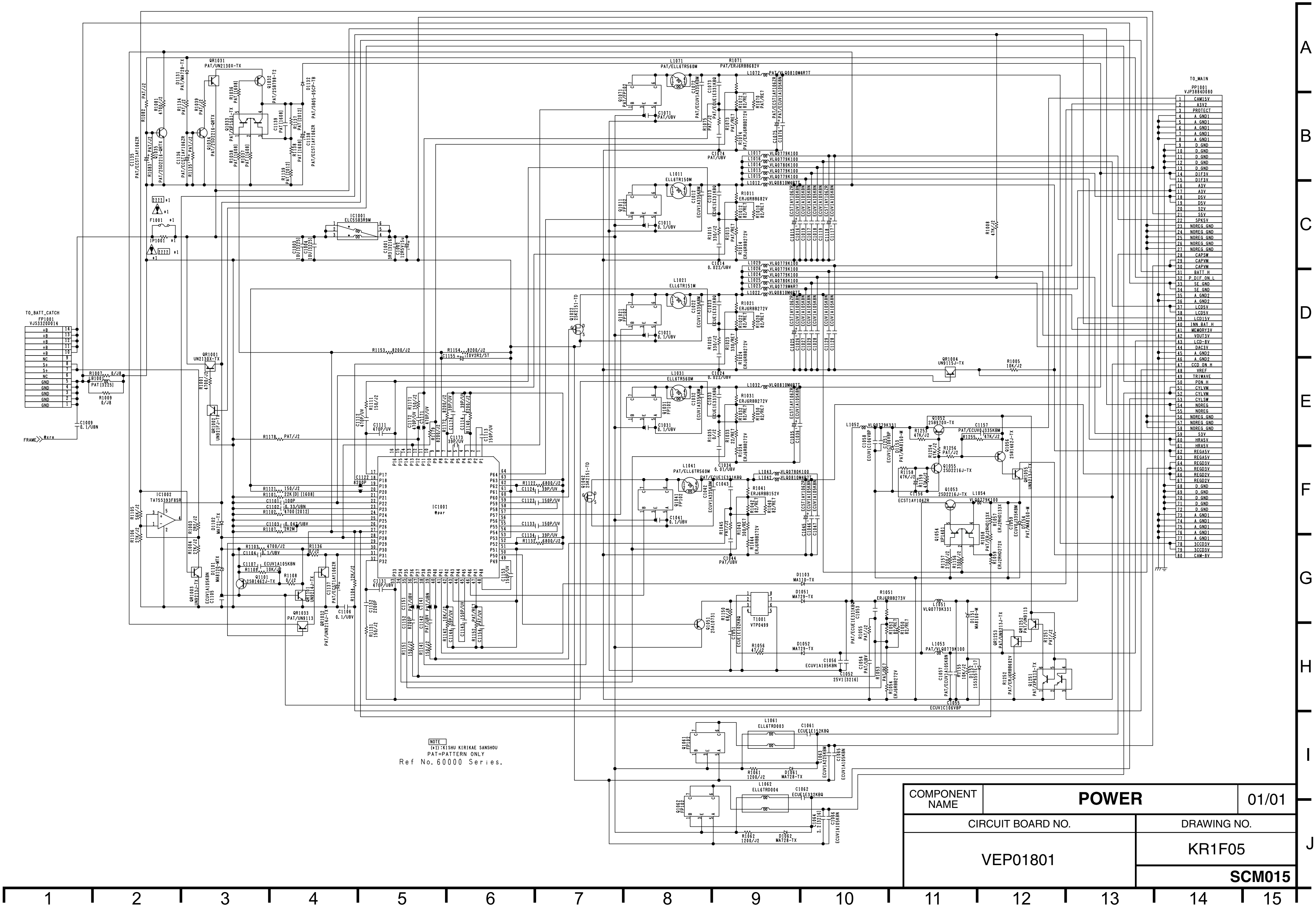


⇨ :DIGITAL Y SIGNAL
➡ :DIGITAL C SIGNAL
⇨ :VIDEO SIGNAL
TO VTR MAIN CN (PS3002) (Page:SCM-12/H-5)
PP301
TO LENSDRIVE (Page:SCM-5)
IC301 MN673432
IC302 MN673442
IC303 MN4795F
IC304 MN4795F
IC305 MN1021617
IC308 TC74VHC08FS
IC311 TC75S14FU
IC312 TC75S14FU
QR303 XP1211
CAMERA OPERATION FPC (VEP20737A)
TO ANALOG PRE PROCESS (FP501)
A-LINE
B-LINE
C-LINE
D-LINE
E-LINE
F-LINE
G-LINE
ADDRESS DATA

COMPONENT NAME	**CAMERA MAIN & CAMERA OPERATION**	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP23443 VEP20737		**SCM016**

A B C D E F G H I J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15


A
B
C
D
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H
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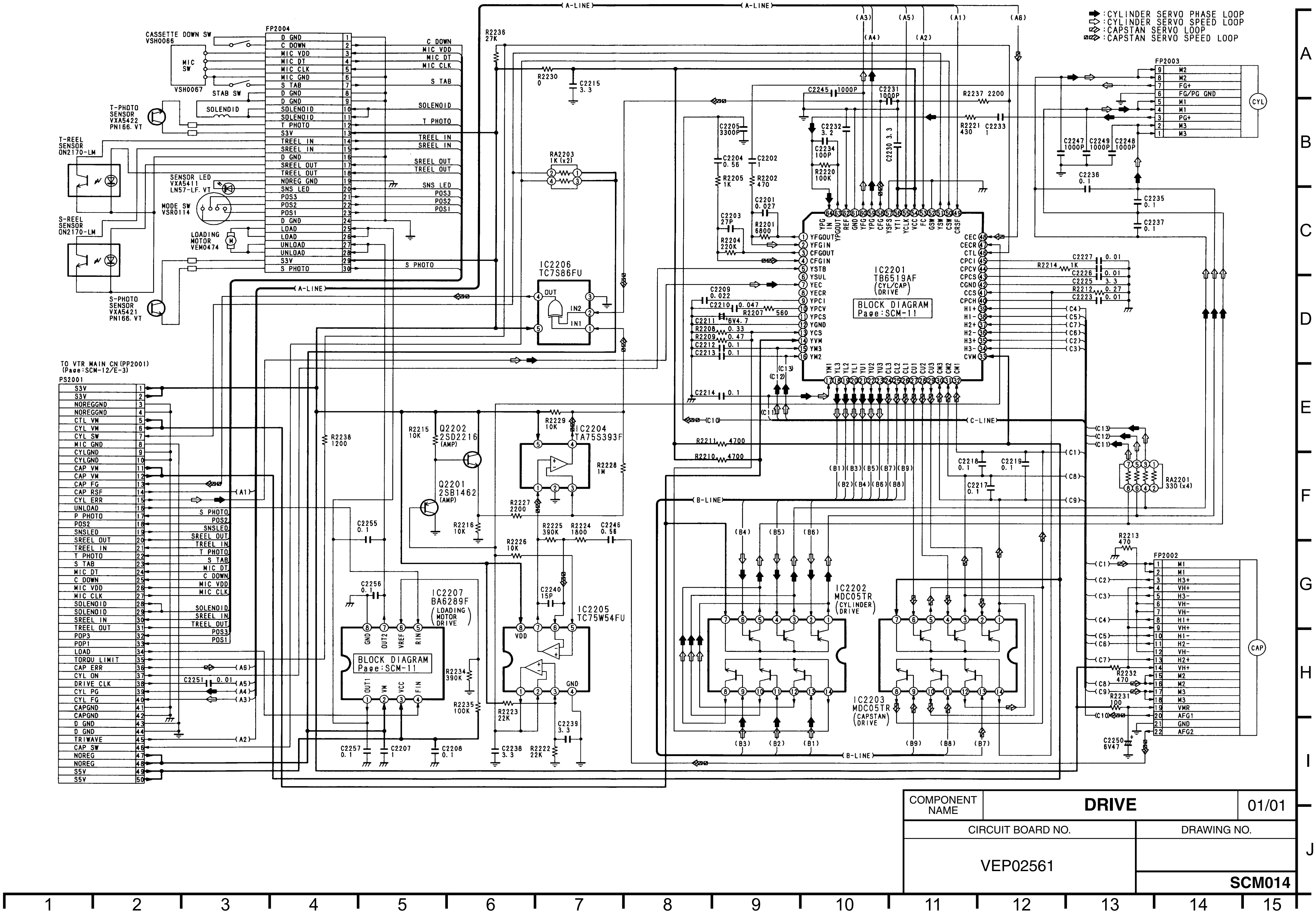
15
TO_BATT_CATCH
FP1001
VJS3320D014
14 +B
13 +B
12 +B
11 +B
10 +B
9 NC
8 S+
7 S+
6 NC
5 GND
4 GND
3 GND
2 GND
1 GND
FRAME
C1009
0.1/UBN
R1007 0/J8
L1001
PAT[3225]
R1009
0/J8
QR1001
UN2130X-TX
QR1031
PAT/UN2130X-TX
IC1002
TA75S393F85R
IC1001
ELC5S03R9M
F1001
JP1001
IC1001
L1071
PAT/ELL6TR560M
R1071
PAT/ERJ6RBB682V
L1011
ELL6TR150M
L1021
ELL6TR151M
L1031
ELL6TR560M
L1041
PAT/ELL6TR560M
L1061
ELL6TRD003
L1062
ELL6TRD004
C1061
ECUE1E152KBQ
C1062
ECUE1E332KBQ
Q1022
2SK2151-TD
Q1042
2SK2151-TD
QR1004
UN9115J-TX
R1005
10K/J2
R1008
47K/J2
Q1052
2SB870X-TX
Q1055
2SD2216J-TX
Q1053
2SD2216J-TX
C1157
PAT/ECUV0J335KBM
L1054
VLQ0779K100
L1051
VLQ0779K331
L1052
VLQ0779K331
L1053
PAT/VLQ0779K100
T1001
VTP0499
D1103
MA110-TX
D1051
MA728-TX
D1052
MA729-TX
R1051
ERJ6RBB273V
C1052
25V1[3216]
C1055
ECUV1C106VBP
R1153 8200/J2
R1154 8200/J2
C1155 10V2R2/ST
R1178 PAT/J2
R1061
1200/J2
D1061
MA728-TX
R1062
1200/J2
D1062
MA728-TX
TO_MAIN
PP1001
VJP3884D080
1 CAM15V
2 A3V2
3 PROTECT
4 A_GND1
5 A_GND1
6 A_GND1
7 A_GND1
8 A_GND1
9 D_GND
10 D_GND
11 D_GND
12 D_GND
13 D_GND
14 DIF3V
15 DIF3V
16 A3V
17 A3V
18 D5V
19 D5V
20 S2V
21 S5V
22 SPK5V
23 NOREG_GND
24 NOREG_GND
25 NOREG_GND
26 NOREG_GND
27 NOREG_GND
28 CAPSW
29 CAPVM
30 CAPVM
31 BATT_H
32 P_DIF_ON_L
33 SE_GND
34 SE_GND
35 A_GND2
36 A_GND2
37 LCD5V
38 LCD5V
39 LCD15V
40 INN_BAT_H
41 MEMORY3V
42 VOUT3V
43 LCD-8V
44 DAC3V
45 A_GND2
46 A_GND2
47 CCD_ON_H
48 VREF
49 TRIWAVE
50 PON_H
51 CYLVM
52 CYLVM
53 CYLSW
54 NOREG
55 NOREG
56 NOREG_GND
57 NOREG_GND
58 NOREG_GND
59 S3V
60 HRA5V
61 HRA5V
62 REGA5V
63 REGA5V
64 REGD3V
65 REGD3V
66 REGD2V
67 REGD2V
68 D_GND
69 D_GND
70 D_GND
71 D_GND
72 D_GND
73 A_GND1
74 A_GND1
75 A_GND1
76 A_GND1
77 A_GND1
78 3CCD3V
79 3CCD3V
80 CAM-8V

NOTE
(*1):KISHU KIRIKAE SANSHOU
PAT=PATTERN ONLY
Ref No.60000 Series.

COMPONENT NAME	POWER	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP01801	KR1F05	
	SCM015	


:CYLINDER SERVO PHASE LOOP
:CYLINDER SERVO SPEED LOOP
:CAPSTAN SERVO LOOP
:CAPSTAN SERVO SPEED LOOP
A-LINE
B-LINE
C-LINE
CASSETTE DOWN SW
VSH0066
MIC SW
VSH0067
STAB SW
SOLENOID
T-PHOTO SENSOR
VXA5422
PN166.VT
T-REEL SENSOR
ON2170-LM
SENSOR LED
VXA5411
LN57-LF.VT
MODE SW
VSR0114
S-REEL SENSOR
ON2170-LM
LOADING MOTOR
VEM0474
S-PHOTO SENSOR
VXA5421
PN166.VT
FP2004
D GND
C DOWN
MIC VDD
MIC DT
MIC CLK
MIC GND
S TAB
D GND
D GND
SOLENOID
SOLENOID
T PHOTO
S3V
TREEL IN
SREEL IN
D GND
SREEL OUT
TREEL OUT
NOREG GND
SNS LED
POS3
POS2
POS1
D GND
LOAD
LOAD
UNLOAD
UNLOAD
S3V
S PHOTO
TO VTR MAIN CN(PP2001)
(Page:SCM-12/E-3)
PS2001
S3V
S3V
NOREGGND
NOREGGND
CTL VM
CYL VM
CYL SW
MIC GND
CYLGND
CYLGND
CAP VM
CAP VM
CAP FG
CAP RSF
CYL ERR
UNLOAD
P PHOTO
POS2
SNSLED
SREEL OUT
TREEL IN
T PHOTO
S TAB
MIC DT
C DOWN
MIC VDD
MIC CLK
SOLENOID
SOLENOID
SREEL IN
TREEL OUT
POP3
POP1
LOAD
TORQU LIMIT
CAP ERR
CYL ON
DRIVE CLK
CYL PG
CYL FG
CAPGND
CAPGND
D GND
D GND
TRIWAVE
CAP SW
NOREG
NOREG
S5V
S5V
R2236 27K
R2230 0
C2215 3.3
RA2203 1K(x2)
IC2206 TC7S86FU
OUT IN2 IN1
R2238 1200
R2215 10K
Q2202 2SD2216 (AMP)
Q2201 2SB1462 (AMP)
R2216 10K
R2229 10K
IC2204 TA75S393F
R2228 1M
R2227 2200
R2225 390K
R2224 1800
C2246 0.56
R2226 10K
C2240 15P
IC2205 TC75W54FU
VDD GND
R2223 22K
C2238 3.3
R2222 22K
C2239 3.3
C2255 0.1
C2256 0.1
IC2207 BA6289F (LOADING MOTOR DRIVE)
GND OUT2 VREF RIN
BLOCK DIAGRAM Page:SCM-11
OUT1 VM VCC FIN
R2234 390K
R2235 100K
C2257 0.1
C2207 1
C2208 0.1
C2251 0.01
C2245 1000P
C2231 1000P
C2205 3300P
C2232 3.2
C2234 100P
R2220 100K
C2230 3.3
C2204 0.56
R2205 1K
C2202 1
R2202 470
C2201 0.027
C2203 27P
R2201 6800
R2204 220K
R2237 2200
R2221 430
C2233 1
IC2201 TB6519AF (CYL/CAP DRIVE)
BLOCK DIAGRAM Page:SCM-11
YPG IN YPGOUT REF GND YFG YPG CFG YSFS YT1 YCLK VCC FC GSW YSW CSW CRSF
YFGOUT YFGIN CFGOUT CFGIN YSTB YSUL YEC YECR YPCI YPCV YPCS YGND YCS YVM YM3 YM2
CEC CECR CTL CPCI CPCV CPCS CGND CCS CPCH H1+ H1- H2+ H2- H3+ H3- CVM
YM1 YL3 YL2 YL1 YU1 YU2 YU3 CL3 CL2 CL1 CU1 CU2 CU3 CM3 CM2 CM1
C2209 0.022
C2210 0.047
R2207 560
C2211 6V4.7
R2208 0.33
R2209 0.47
C2212 0.1
C2213 0.1
C2214 0.1
R2214 1K
C2227 0.01
C2226 0.01
C2225 3.3
R2212 0.27
C2223 0.01
R2211 4700
R2210 4700
C2218 0.1
C2219 0.1
C2217 0.1
RA2201 330(x4)
FP2003
M2
M2
FG+
FG/PG GND
M1
M1
PG+
M3
M3
CYL
C2247 1000P
C2249 1000P
C2248 1000P
C2236 0.1
C2235 0.1
C2237 0.1
IC2202 MDC05TR (CYLINDER DRIVE)
IC2203 MDC05TR (CAPSTAN DRIVE)
R2213 470
FP2002
MI
MI
H3+
VH+
H3-
VH-
VH-
H1+
VH+
H1-
H2-
VH-
H2+
VH+
M2
M2
M3
M3
VMR
AFG1
GND
AFG2
CAP
R2232 470
R2231 100
C2250 6V47
A
B
C
D
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G
H
I
J
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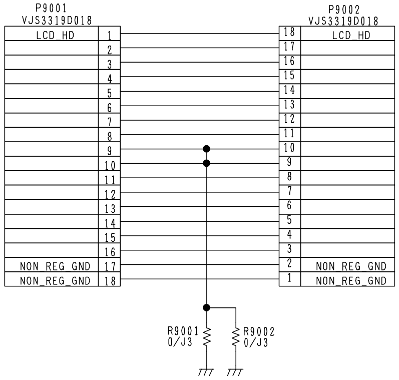
COMPONENT NAME	DRIVE	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP02561		
		SCM014



P9001
VJS3319D018
LCD_HD
1
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3
4
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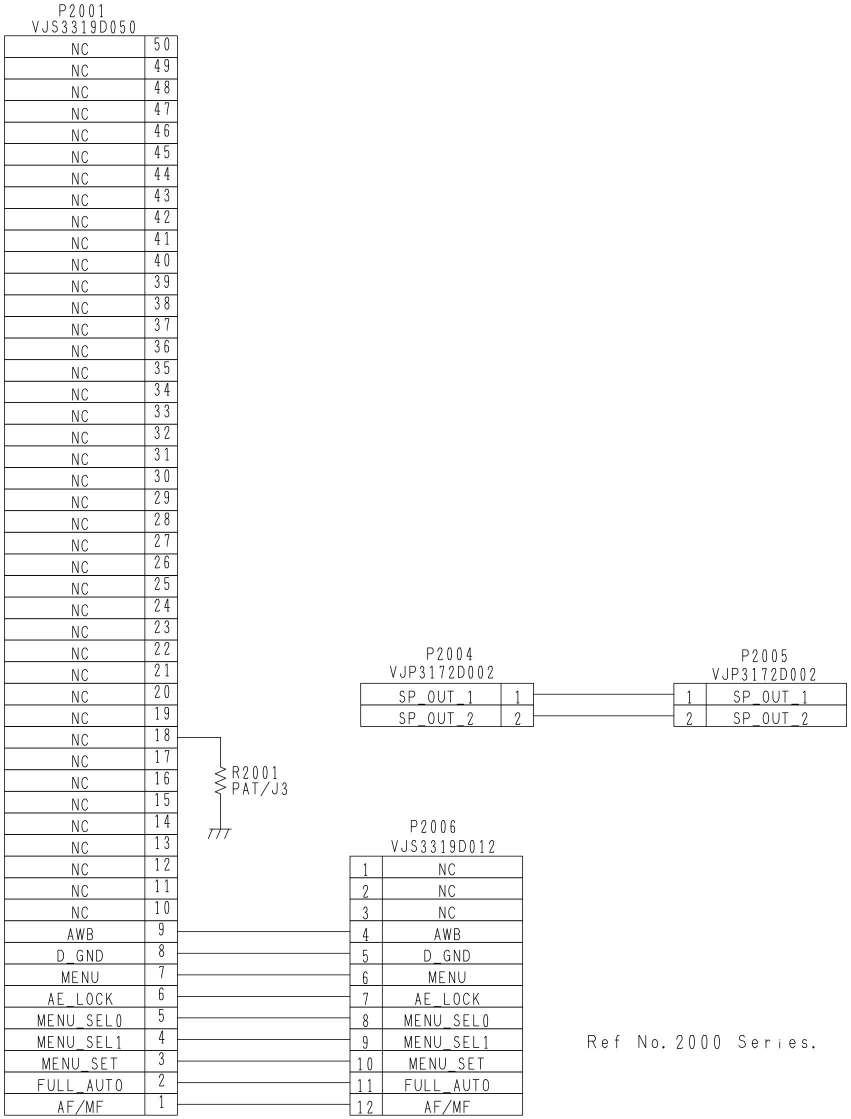
10
11
12
13
14
15
16
NON_REG_GND 17
NON_REG_GND 18
P9002
VJS3319D018
18 LCD_HD
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2 NON_REG_GND
1 NON_REG_GND
R9001
0/J3
R9002
0/J3

Ref No. 9000 Series.

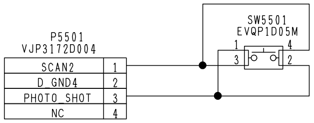
COMPONENT NAME	EVF	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000S1	KR0P95	
	SCM013	



P2001
VJS3319D050
NC 50
NC 49
NC 48
NC 47
NC 46
NC 45
NC 44
NC 43
NC 42
NC 41
NC 40
NC 39
NC 38
NC 37
NC 36
NC 35
NC 34
NC 33
NC 32
NC 31
NC 30
NC 29
NC 28
NC 27
NC 26
NC 25
NC 24
NC 23
NC 22
NC 21
NC 20
NC 19
NC 18
NC 17
NC 16
NC 15
NC 14
NC 13
NC 12
NC 11
NC 10
AWB 9
D_GND 8
MENU 7
AE_LOCK 6
MENU_SEL0 5
MENU_SEL1 4
MENU_SET 3
FULL_AUTO 2
AF/MF 1
R2001
PAT/J3
P2004
VJP3172D002
SP_OUT_1 1
SP_OUT_2 2
P2005
VJP3172D002
1 SP_OUT_1
2 SP_OUT_2
P2006
VJS3319D012
1 NC
2 NC
3 NC
4 AWB
5 D_GND
6 MENU
7 AE_LOCK
8 MENU_SEL0
9 MENU_SEL1
10 MENU_SET
11 FULL_AUTO
12 AF/MF

Ref No. 2000 Series.

COMPONENT NAME	LCD	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000R7	KR0P84	
	SCM013	



P5501
VJP3172D004
SCAN2 1
D_GND4 2
PHOTO_SHOT 3
NC 4
SW5501
EVQP1D05M
1
4
3
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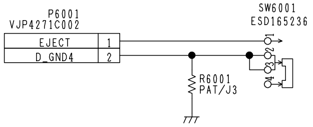
Ref No. 5500 Series.

COMPONENT NAME	PHOTO_SHOT	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000S2	KR0Q00	
	SCM013	

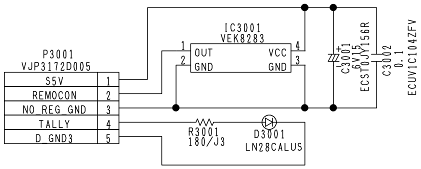
A B C D E F G H I J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15


P6001
VJP4271C002
EJECT 1
D_GND4 2
SW6001
ESD165236
1
2
3
4
R6001
PAT/J3

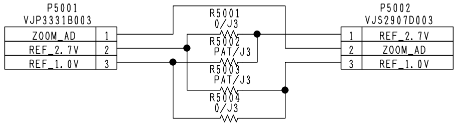
Ref No.5500 Series.

COMPONENT NAME	**EJECT**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000R1	KR0P78	
	SCM012	


P3001
VJP3172D005
S5V 1
REMOCON 2
NO_REG_GND 3
TALLY 4
D_GND3 5
IC3001
VEK8283
1 OUT
2 GND
VCC 4
GND 3
R3001
180/J3
D3001
LN28CALUS
C3001
6V15
ECST0JY156R
C3002
0.1
ECUV1C104ZFV

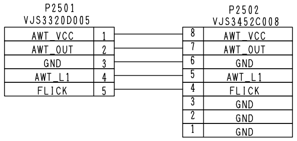
Ref No.3000 Series.

COMPONENT NAME	**REMOCON**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000R3	KR0Q59	
	SCM012	


P5001
VJP3331B003
ZOOM_AD 1
REF_2.7V 2
REF_1.0V 3
R5001
0/J3
R5002
PAT/J3
R5003
PAT/J3
R5004
0/J3
P5002
VJS2907D003
1 REF_2.7V
2 ZOOM_AD
3 REF_1.0V

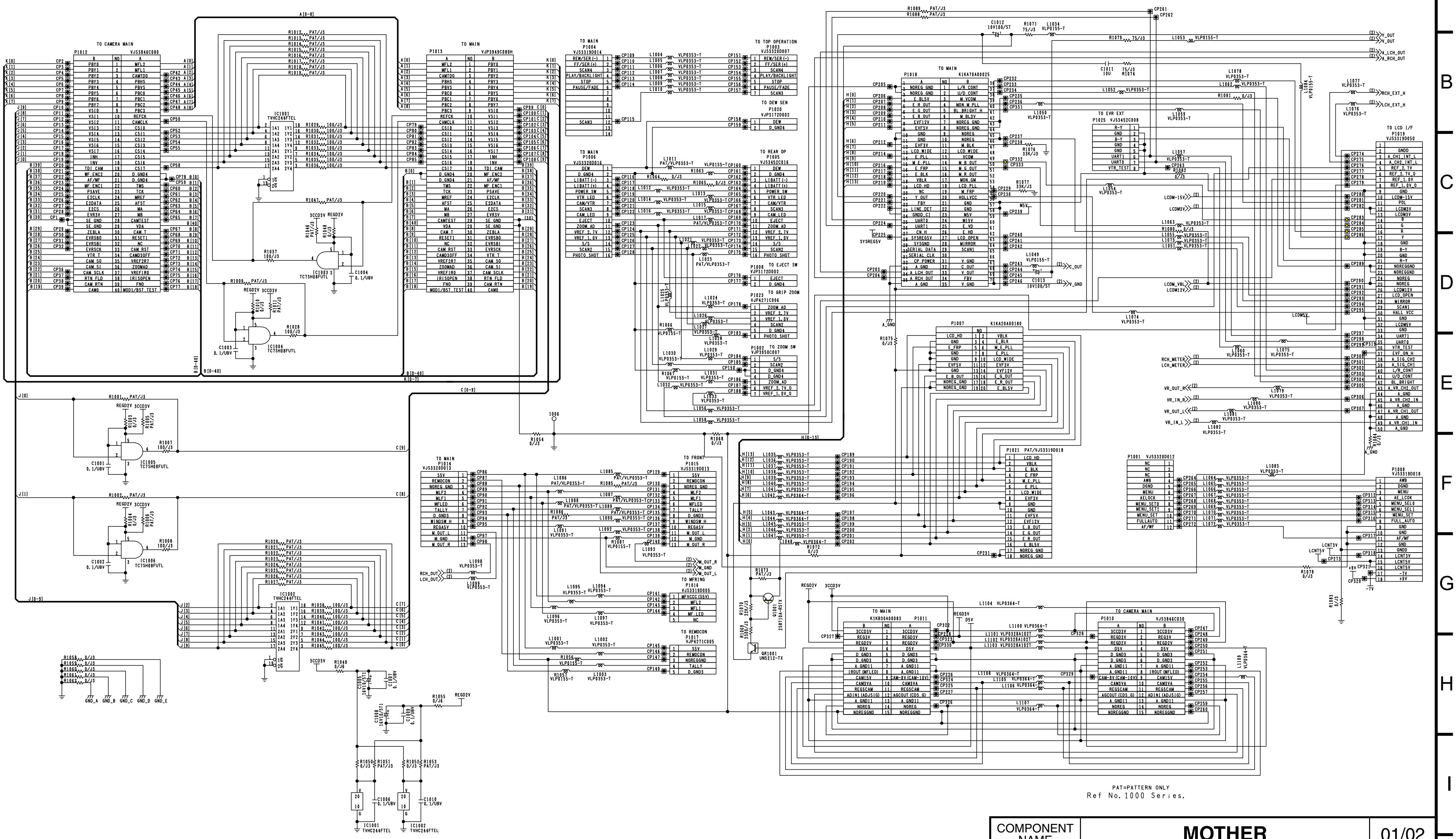
Ref No.5000 Series.

COMPONENT NAME	**ZOOM_SW**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000R4	KR0P81	
	SCM012	


P2501
VJS3320D005
AWT_VCC 1
AWT_OUT 2
GND 3
AWT_L1 4
FLICK 5
P2502
VJS3452C008
8 AWT_VCC
7 AWT_OUT
6 GND
5 AWT_L1
4 FLICK
3 GND
2 GND
1 GND

Ref No.2500 Series.

COMPONENT NAME	**AWT**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000R5	KR0P82	
	SCM012	



TO CAMERA MAIN
P1012
VJS3946C080
TO MAIN
P1013
VJP3949C080H
IC1003
TVHC244FTEL
IC1002
TVHC244FTEL
IC1001
TVHC244FTEL
IC1004
TC7SH08FUTL
IC1005
TC7SH08FUTL
IC1006
TC7SH08FUTL
TO MAIN
P1004
TO TOP OPERATION
P1003
TO DEW SEN
P1020
TO MAIN
P1006
TO REAR OP
P1005
TO EJECT SW
P1008
TO GRIP ZOOM
P1023
TO ZOOM SW
P1002
TO MAIN
P1018
K1KA10A00025
TO EVR EXT
P1025
TO LCD I/F
P1019
P1007
K1KA20A00180
P1021
P1001
P1009
TO MAIN
P1014
TO FRONT
P1015
TO MFRING
P1016
TO REMOCON
P1017
TO MAIN
P1011
TO CAMERA MAIN
P1010
Q1001
QR1001
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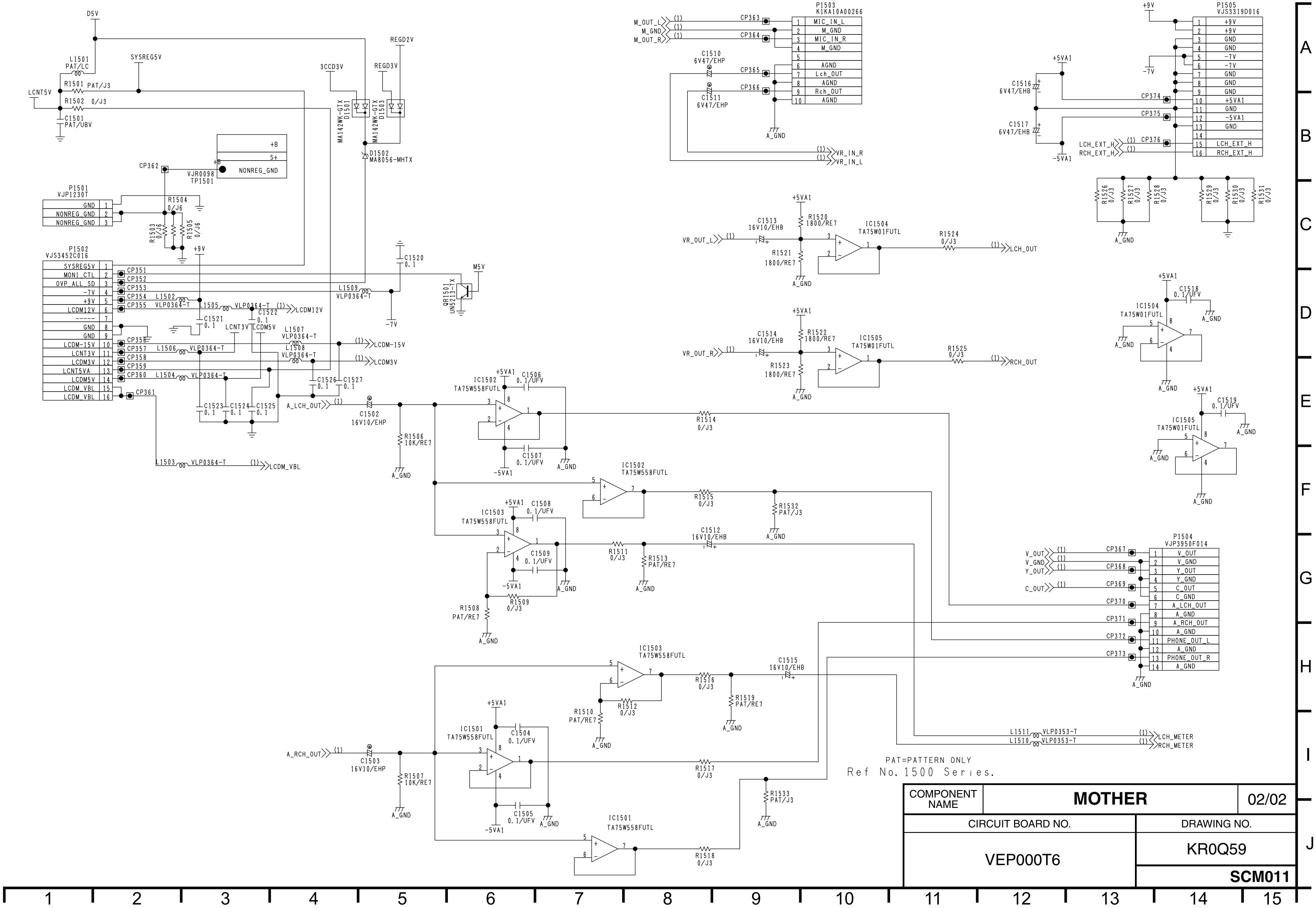
PAT=PATTERN ONLY
Ref No.1000 Series.

COMPONENT NAME	MOTHER	01/02
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000T6	KR0Q59	
	SCM010	


D5V
L1501
PAT/LC
SYSREG5V
R1501 PAT/J3
LCNT5V
R1502 0/J3
C1501
PAT/UBV
3CCD3V
REGD2V
REGD3V
MA142WK-GTX
D1501
D1503
D1502
MA8056-MHTX
CP362
+B
S+
NONREG_GND
VJR0098
TP1501
P1501
VJP1230T
GND 1
NONREG_GND 2
NONREG_GND 3
R1504
0/J6
R1503
0/J6
R1505
0/J6
+9V
P1502
VJS3452C016
SYSREG5V 1
MONI_CTL 2
OVP_ALL_SD 3
-7V 4
+9V 5
LCDM12V 6
------ 7
GND 8
GND 9
LCDM-15V 10
LCNT3V 11
LCDM3V 12
LCNT5VA 13
LCDM5V 14
LCDM_VBL 15
LCDM_VBL 16
CP351
CP352
CP353
CP354
CP355
CP356
CP357
CP358
CP359
CP360
CP361
L1502
VLP0364-T
L1505
VLP0364-T
(1) LCDM12V
L1509
VLP0364-T
-7V
C1520
0.1
M5V
QR1501
UN5213-TX
C1521
0.1
C1522
0.1
LCNT3V
LCDM5V
L1507
VLP0364-T
L1506
VLP0364-T
(1) LCDM-15V
L1508
VLP0364-T
(1) LCDM3V
L1504
VLP0364-T
C1526
0.1
C1527
0.1
C1523
0.1
C1524
0.1
C1525
0.1
L1503
VLP0364-T
(1) LCDM_VBL
M_OUT_L (1)
M_GND (1)
M_OUT_R (1)
CP363
CP364
CP365
CP366
P1503
K1KA10A00266
1 MIC_IN_L
2 M_GND
3 MIC_IN_R
4 M_GND
5
6 AGND
7 Lch_OUT
8 AGND
9 Rch_OUT
10 AGND
C1510
6V47/EHP
C1511
6V47/EHP
A_GND
(1) VR_IN_R
(1) VR_IN_L
+9V
P1505
VJS3319D016
1 +9V
2 +9V
3 GND
4 GND
5 -7V
6 -7V
7 GND
8 GND
9 GND
10 +5VA1
11 GND
12 -5VA1
13 GND
14
15 LCH_EXT_H
16 RCH_EXT_H
+5VA1
-7V
C1516
6V47/EHB
C1517
6V47/EHB
-5VA1
CP374
CP375
CP376
LCH_EXT_H (1)
RCH_EXT_H (1)
R1526 0/J3
R1527 0/J3
R1528 0/J3
R1529 0/J3
R1530 0/J3
R1531 0/J3
A_GND
+5VA1
C1513
16V10/EHB
R1520
1800/RE7
IC1504
TA75W01FUTL
VR_OUT_L (1)
R1521
1800/RE7
R1524
0/J3
(1) LCH_OUT
A_GND
+5VA1
C1514
16V10/EHB
R1522
1800/RE7
IC1505
TA75W01FUTL
VR_OUT_R (1)
R1523
1800/RE7
R1525
0/J3
(1) RCH_OUT
A_GND
+5VA1
C1518
0.1/UFV
IC1504
TA75W01FUTL
A_GND
+5VA1
C1519
0.1/UFV
IC1505
TA75W01FUTL
A_GND
+5VA1
C1506
0.1/UFV
IC1502
TA75W558FUTL
A_LCH_OUT (1)
C1502
16V10/EHP
R1506
10K/RE7
A_GND
C1507
0.1/UFV
-5VA1
R1514
0/J3
IC1502
TA75W558FUTL
R1515
0/J3
R1532
PAT/J3
A_GND
+5VA1
C1508
0.1/UFV
IC1503
TA75W558FUTL
C1509
0.1/UFV
R1511
0/J3
R1513
PAT/RE7
C1512
16V10/EHB
-5VA1
R1508
PAT/RE7
R1509
0/J3
A_GND
P1504
VJP3950F014
V_OUT (1)
V_GND (1)
Y_OUT (1)
C_OUT (1)
CP367
CP368
CP369
CP370
CP371
CP372
CP373
1 V_OUT
2 V_GND
3 Y_OUT
4 Y_GND
5 C_OUT
6 C_GND
7 A_LCH_OUT
8 A_GND
9 A_RCH_OUT
10 A_GND
11 PHONE_OUT_L
12 A_GND
13 PHONE_OUT_R
14 A_GND
IC1503
TA75W558FUTL
R1516
0/J3
C1515
16V10/EHB
R1519
PAT/RE7
R1510
PAT/RE7
R1512
0/J3
L1511 VLP0353-T
L1510 VLP0353-T
(1) LCH_METER
(1) RCH_METER
+5VA1
IC1501
TA75W558FUTL
C1504
0.1/UFV
A_RCH_OUT (1)
C1503
16V10/EHP
R1507
10K/RE7
R1517
0/J3
C1505
0.1/UFV
-5VA1
R1533
PAT/J3
IC1501
TA75W558FUTL
R1518
0/J3
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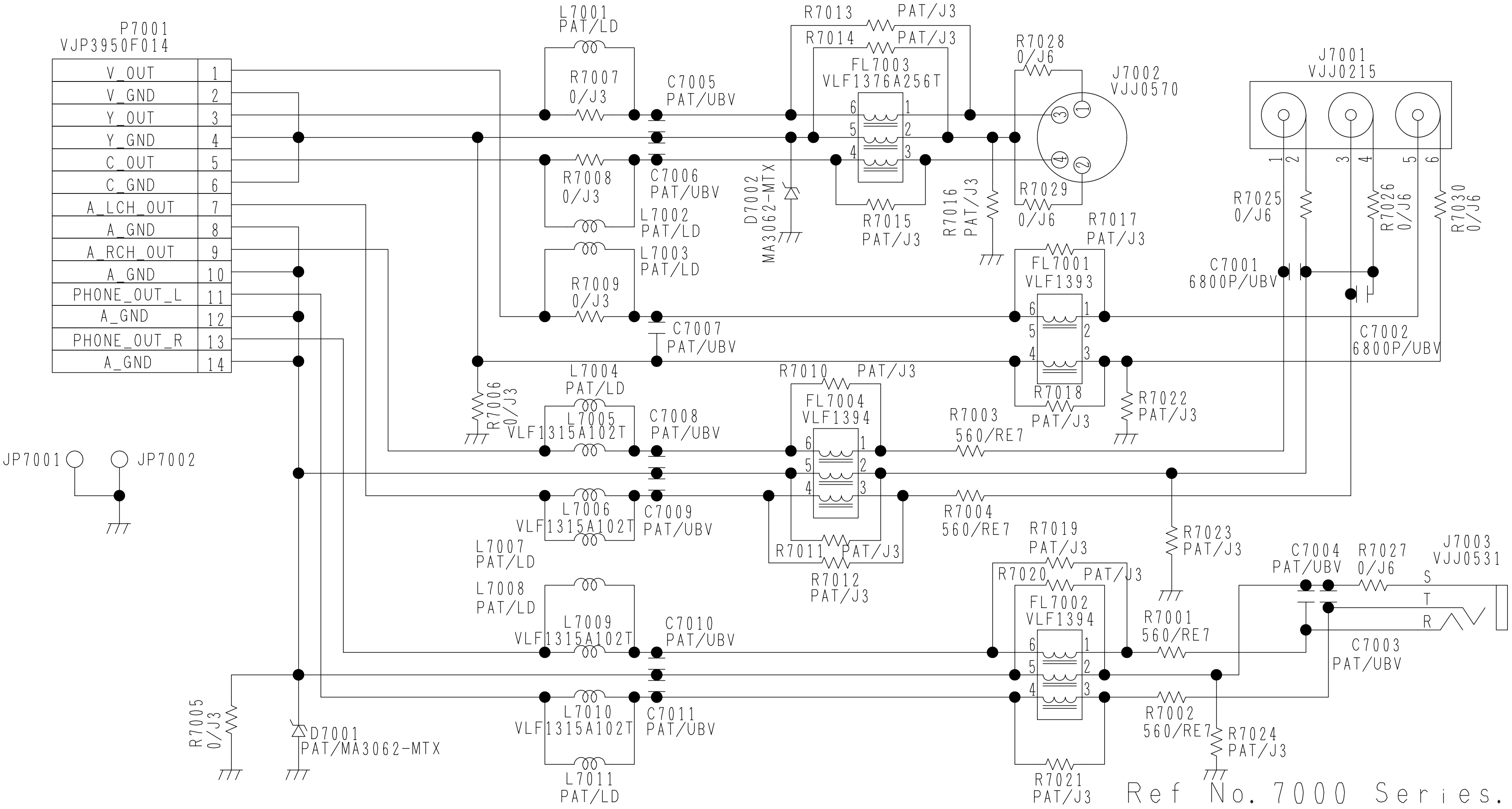
PAT=PATTERN ONLY
Ref No.1500 Series.

COMPONENT NAME	**MOTHER**	02/02
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000T6	KR0Q59	
	SCM011	


P7001
VJP3950F014
V_OUT 1
V_GND 2
Y_OUT 3
Y_GND 4
C_OUT 5
C_GND 6
A_LCH_OUT 7
A_GND 8
A_RCH_OUT 9
A_GND 10
PHONE_OUT_L 11
A_GND 12
PHONE_OUT_R 13
A_GND 14
L7001
PAT/LD
R7007
0/J3
C7005
PAT/UBV
R7008
0/J3
C7006
PAT/UBV
L7002
PAT/LD
L7003
PAT/LD
R7009
0/J3
C7007
PAT/UBV
R7006
0/J3
L7004
PAT/LD
L7005
VLF1315A102T
C7008
PAT/UBV
L7006
VLF1315A102T
C7009
PAT/UBV
L7007
PAT/LD
L7008
PAT/LD
L7009
VLF1315A102T
C7010
PAT/UBV
L7010
VLF1315A102T
C7011
PAT/UBV
L7011
PAT/LD
R7005
0/J3
D7001
PAT/MA3062-MTX
JP7001
JP7002
R7013 PAT/J3
R7014 PAT/J3
FL7003
VLF1376A256T
D7002
MA3062-MTX
R7015
PAT/J3
R7016
PAT/J3
R7028
0/J6
J7002
VJJ0570
R7029
0/J6
R7017
PAT/J3
FL7001
VLF1393
R7018
PAT/J3
R7022
PAT/J3
R7010 PAT/J3
FL7004
VLF1394
R7003
560/RE7
R7004
560/RE7
R7011 PAT/J3
R7012
PAT/J3
R7019
PAT/J3
R7020 PAT/J3
FL7002
VLF1394
R7001
560/RE7
R7002
560/RE7
R7021
PAT/J3
R7023
PAT/J3
R7024
PAT/J3
J7001
VJJ0215
R7025
0/J6
R7026
0/J6
R7030
0/J6
C7001
6800P/UBV
C7002
6800P/UBV
C7004
PAT/UBV
R7027
0/J6
J7003
VJJ0531
S
T
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C7003
PAT/UBV
Ref No. 7000 Series.
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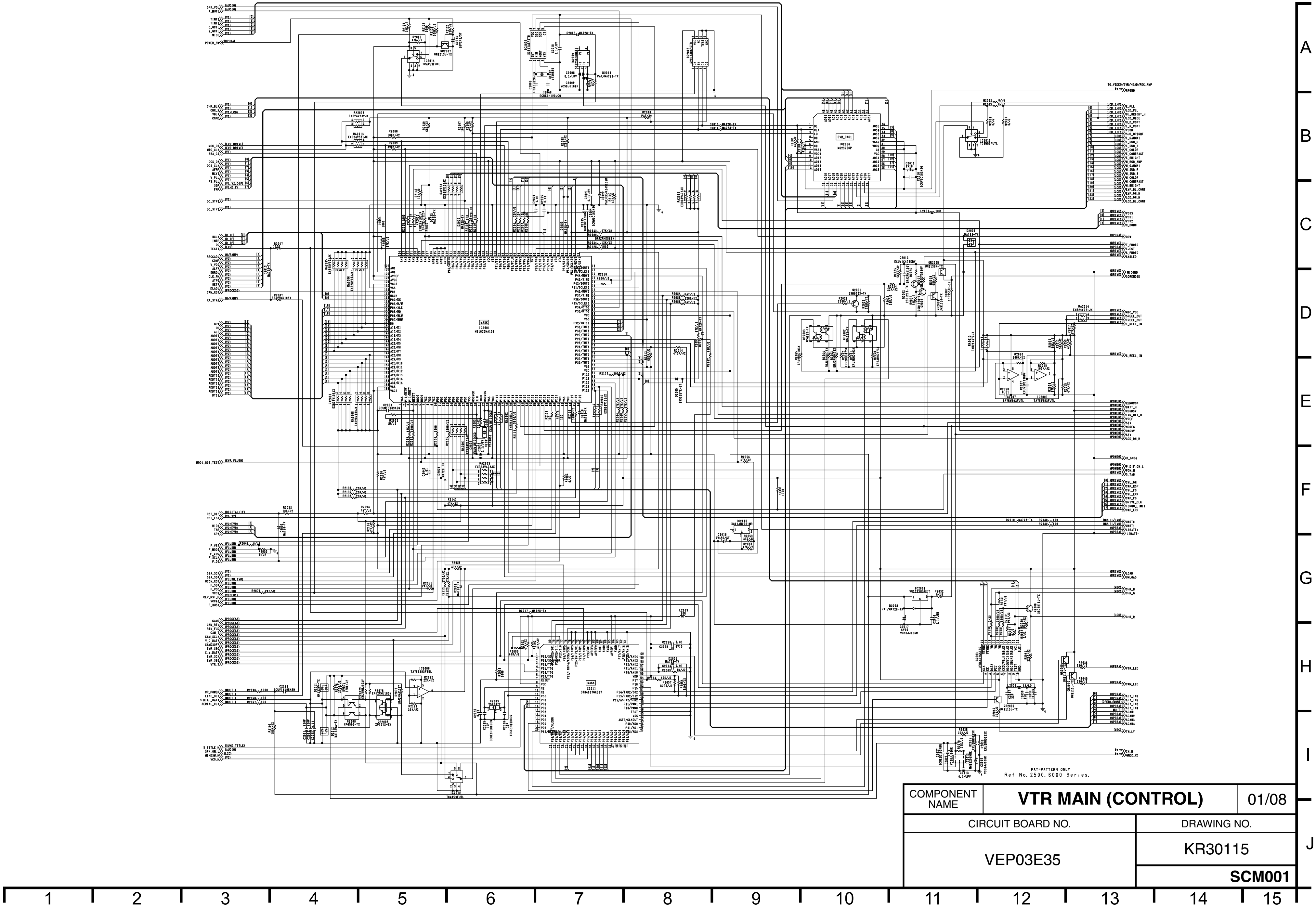
COMPONENT NAME	JACK		01/01
CIRCUIT BOARD NO.		DRAWING NO.	
VEP04778		KR4K22	
		SCM009	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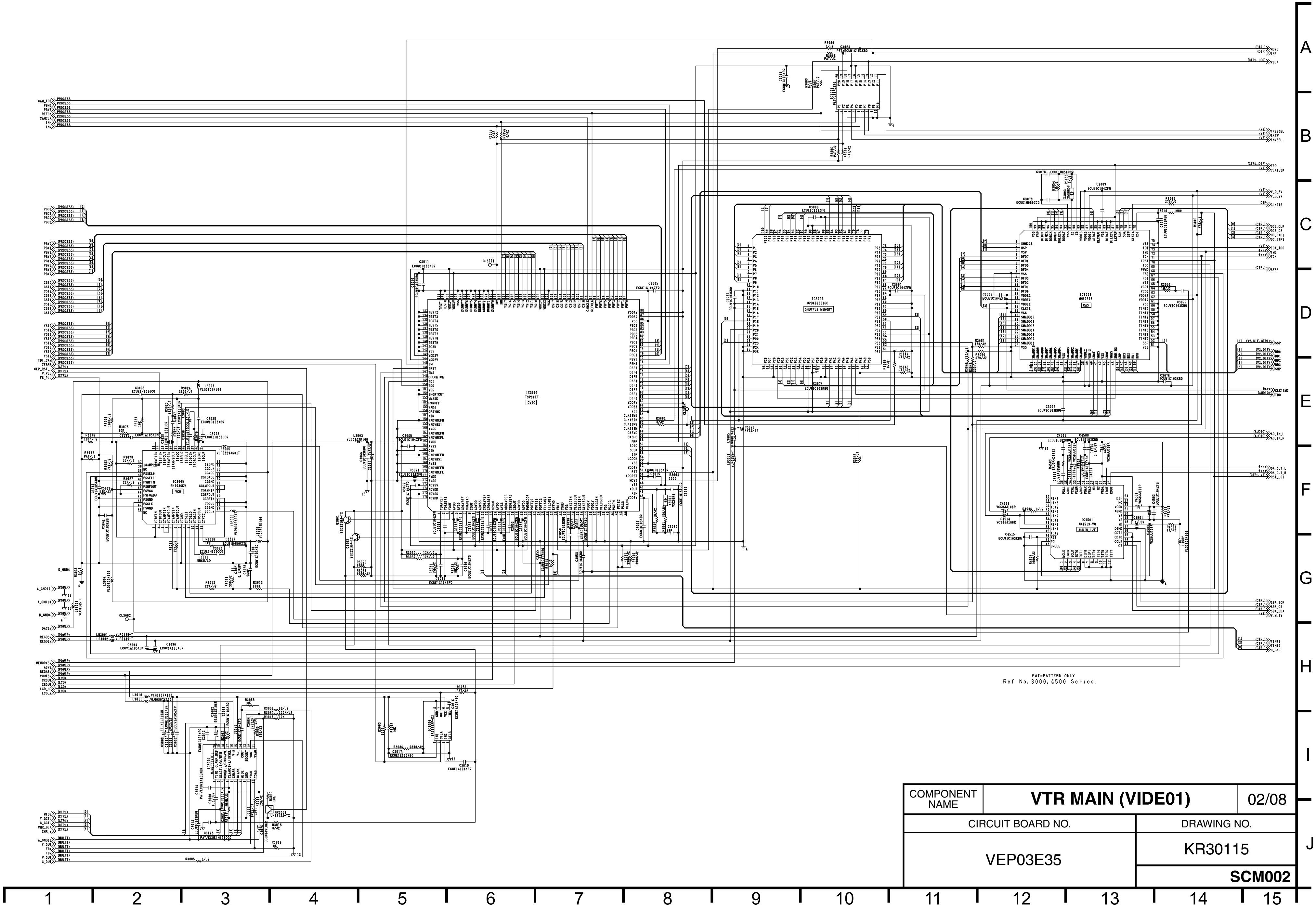
PAT=PATTERN ONLY
Ref No. 2500, 6000 Series.

COMPONENT NAME	VTR MAIN (CONTROL)	01/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP03E35	KR30115	
	SCM001	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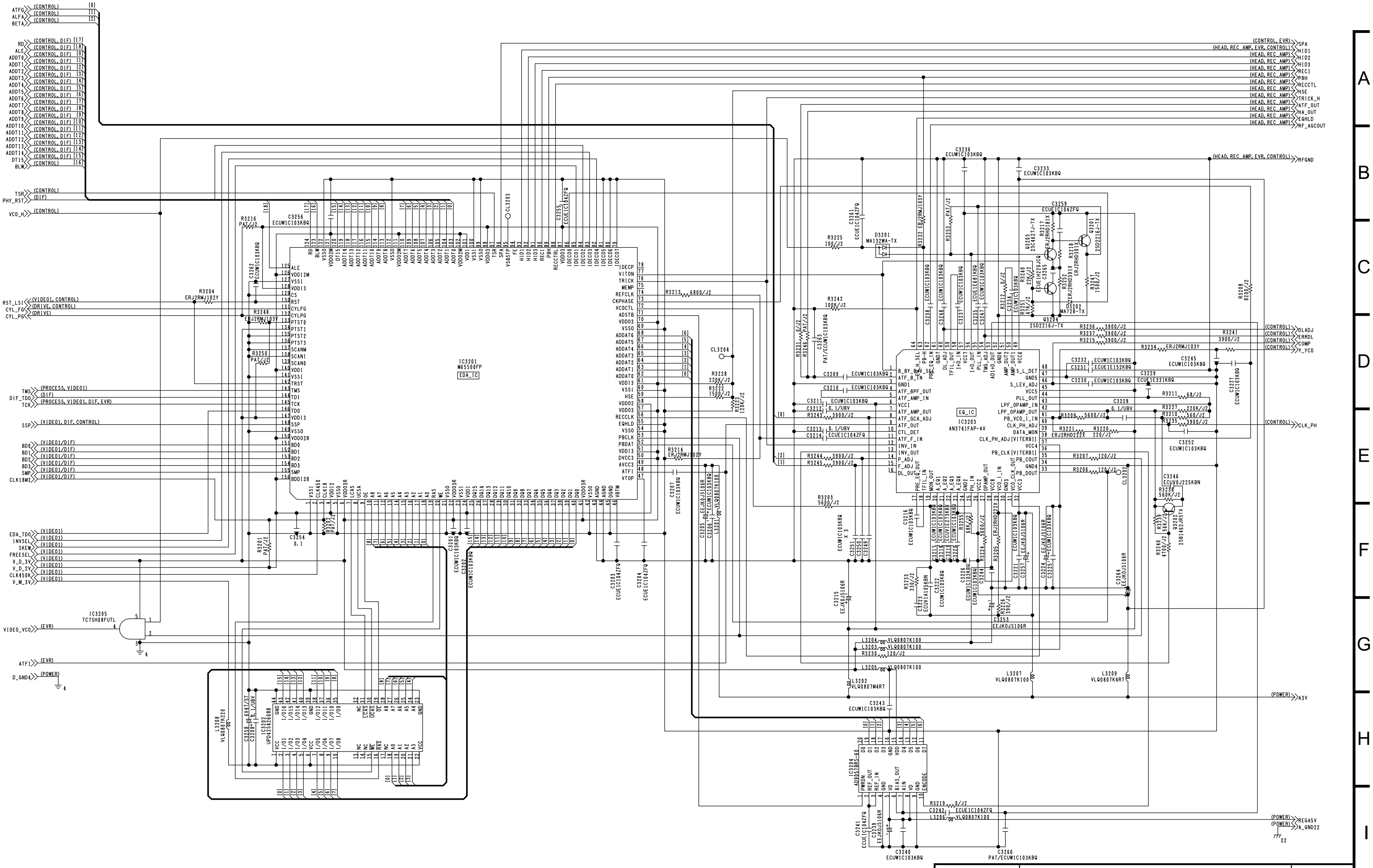
IC3001
TSP8EF
DVIO
IC3002
UPD4890016C
SHUFFLE_MEMORY
IC3003
MN67373
CAS
IC3005
BH7086KV
VCO
IC4501
AK4513-VQ
AUDIO_I/F

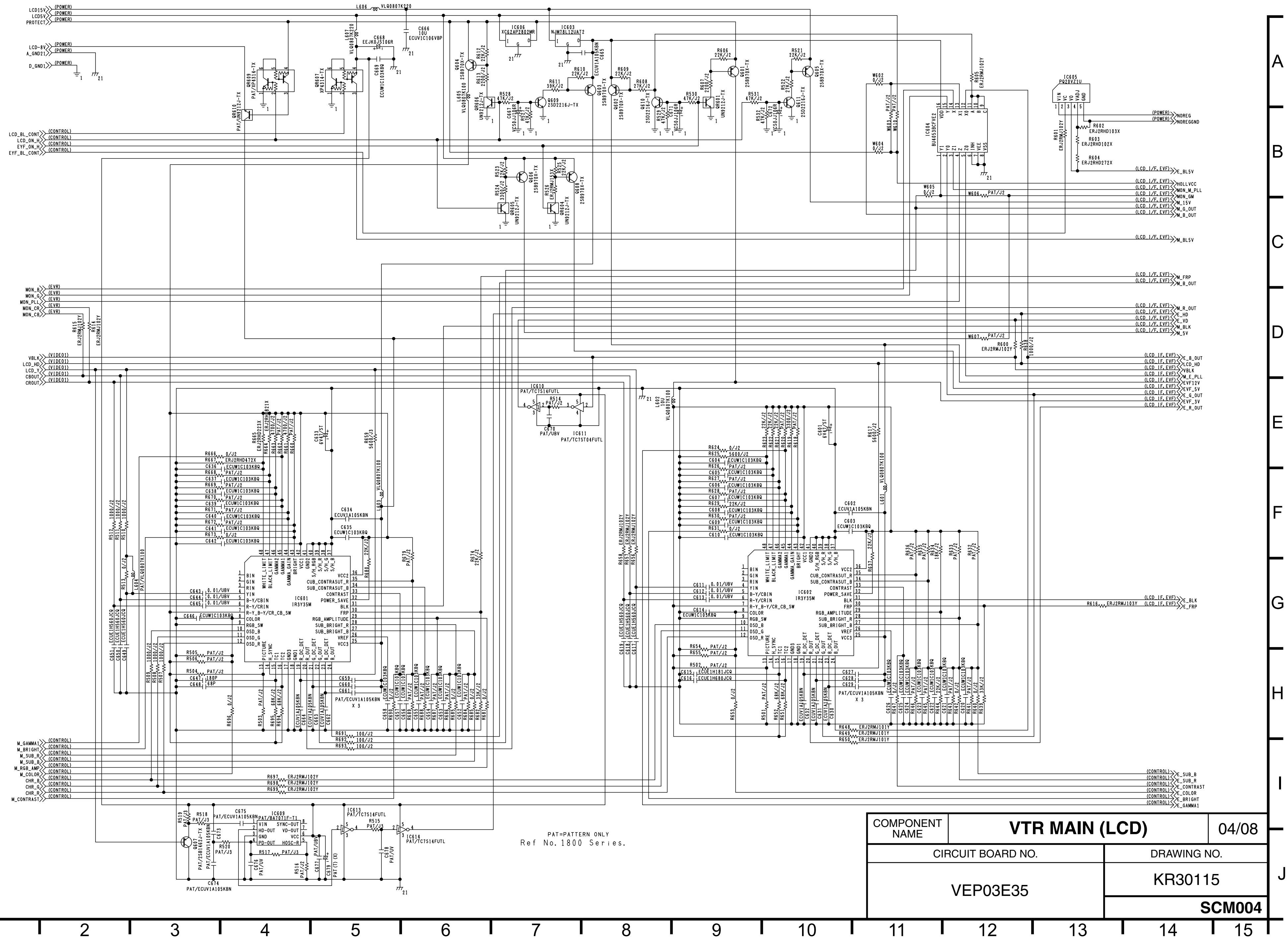
PAT=PATTERN ONLY
Ref No. 3000, 4500 Series.

COMPONENT NAME	VTR MAIN (VIDE01)	02/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP03E35	KR30115	
	SCM002	


ATFG (CONTROL)
ALFA (CONTROL)
BETA (CONTROL)
RD (CONTROL, DIF)
ALE (CONTROL, DIF)
ADDT0 – ADDT14 (CONTROL, DIF)
DT15 (CONTROL, DIF)
BLW (CONTROL)
TSR (CONTROL)
PHY_RST (DIF)
VCO_H (CONTROL)
RST_LSI (VIDEO1, CONTROL)
CYL_FG (DRIVE, CONTROL)
CYL_PG (DRIVE)
TMS (PROCESS, VIDEO1)
DIF_TDO (DIF)
TCK (PROCESS, VIDEO1, DIF, EVR)
SSP (VIDEO1, DIF, CONTROL)
BD0 (VIDEO1/DIF)
BD1 (VIDEO1/DIF)
BD2 (VIDEO1/DIF)
BD3 (VIDEO1/DIF)
SMP (VIDEO1/DIF)
CLK18M2 (VIDEO1/DIF)
EDA_TDO (VIDEO1)
INVSEL (VIDEO1)
SKEW (VIDEO1)
FREESEL (VIDEO1)
V_D_3V (VIDEO1)
V_D_2V (VIDEO1)
CLK450K (VIDEO1)
V_M_3V (VIDEO1)
VIDEO_VCO (EVR)
ATF1 (EVR)
D_GND4 (POWER)
IC3201 M65500FP EDA_IC
IC3202 UPD4216260BB
IC3203 AN3741FAP-AV EQ_IC
IC3204 AD9051BRS-40
IC3205 TC7SH08FUTL
D3201 MA132WA-TX
Q3201 2SD2216J-TX
Q3202 MA728-TX
Q3203 2SC4627J-TX
Q3204 2SD2216J-TX
Q3205 2SB1462J-RS-TX
SPA (CONTROL, EVR)
HID1 (HEAD, REC_AMP, EVR, CONTROL)
HID2 (HEAD, REC_AMP)
HID3 (HEAD, REC_AMP)
REC1 (HEAD, REC_AMP)
PBH (HEAD, REC_AMP)
RECCTL (HEAD, REC_AMP)
HSE (HEAD, REC_AMP)
TRICK_H (HEAD, REC_AMP)
ATF_OUT (HEAD, REC_AMP)
HA_OUT (HEAD, REC_AMP)
EQHLD (HEAD, REC_AMP)
RF_AGCOUT (HEAD, REC_AMP)
RFGND (HEAD, REC_AMP, EVR, CONTROL)
DLADJ (CONTROL)
ERRDL (CONTROL)
COMP (CONTROL)
Y_YCO (CONTROL)
CLK_PH (CONTROL)
A3V (POWER)
REGA5V (POWER)
A_GND22 (POWER)
A B C D E F G H I J
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

PAT=PATTERN ONLY
Ref No. 3200 Series.

COMPONENT NAME	VTR MAIN (VIDE02)	03/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP03E35	KR30115	
	SCM003	



LCD15V (POWER)
LCD5V (POWER)
PROTECT (POWER)
LCD-8V (POWER)
A_GND21 (POWER)
D_GND1 (POWER)
LCD_BL_CONT (CONTROL)
LCD_ON_H (CONTROL)
EYF_ON_H (CONTROL)
EYF_BL_CONT (CONTROL)
MON_B (EVR)
MON_G (EVR)
MON_PLL (EVR)
MON_CR (EVR)
MON_CB (EVR)
VBLK (VIDEO1)
LCD_HD (VIDEO1)
LCD_Y (VIDEO1)
CBOUT (VIDEO1)
CROUT (VIDEO1)
M_GAMMA1 (CONTROL)
M_BRIGHT (CONTROL)
M_SUB_R (CONTROL)
M_SUB_B (CONTROL)
M_RGB_AMP (CONTROL)
M_COLOR (CONTROL)
CHR_B (CONTROL)
CHR_G (CONTROL)
CHR_R (CONTROL)
M_CONTRAST (CONTROL)
L606 VLQ0807K220
IC606 XC62AP2802MR
IC603 NJM78L12UAT2
C666 10U ECUV1C106VBP
C668 EEJK0JS106R
IC605 PQ20VZ1U
IC604 BU4053BCFVE2
IC601 IR3Y35M
IC602 IR3Y35M
IC610 PAT/TC7S14FUTL
IC611 PAT/TC7ST04FUTL
IC609 PAT/BA7071F-T1
IC613 PAT/TC7S14FUTL
IC614 PAT/TC7S14FUTL
Q607 PAT/2SB1462J-TX
(POWER) NOREG
(POWER) NOREGGND
(LCD_I/F, EVF) E_BL5V
(LCD_I/F, EVF) HOLLVCC
(LCD_I/F, EVF) MON_M_PLL
(LCD_I/F, EVF) MON_GM
(LCD_I/F, EVF) M_15V
(LCD_I/F, EVF) M_G_OUT
(LCD_I/F, EVF) M_B_OUT
(LCD_I/F, EVF) M_BL5V
(LCD_I/F, EVF) M_FRP
(LCD_I/F, EVF) M_B_OUT
(LCD_I/F, EVF) M_R_OUT
(LCD_I/F, EVF) E_HD
(LCD_I/F, EVF) E_VD
(LCD_I/F, EVF) M_BLK
(LCD_I/F, EVF) M_5V
(LCD_I/F, EVF) E_B_OUT
(LCD_I/F, EVF) LCD_HD
(LCD_I/F, EVF) VBLK
(LCD_I/F, EVF) M_E_PLL
(LCD_I/F, EVF) EVF12V
(LCD_I/F, EVF) EVF_5V
(LCD_I/F, EVF) E_G_OUT
(LCD_I/F, EVF) EVF_3V
(LCD_I/F, EVF) E_R_OUT
(LCD_I/F, EVF) E_BLK
(LCD_I/F, EVF) E_FRP
(CONTROL) E_SUB_B
(CONTROL) E_SUB_R
(CONTROL) E_CONTRAST
(CONTROL) E_COLOR
(CONTROL) E_BRIGHT
(CONTROL) E_GAMMA1
PAT=PATTERN ONLY
Ref No. 1800 Series.
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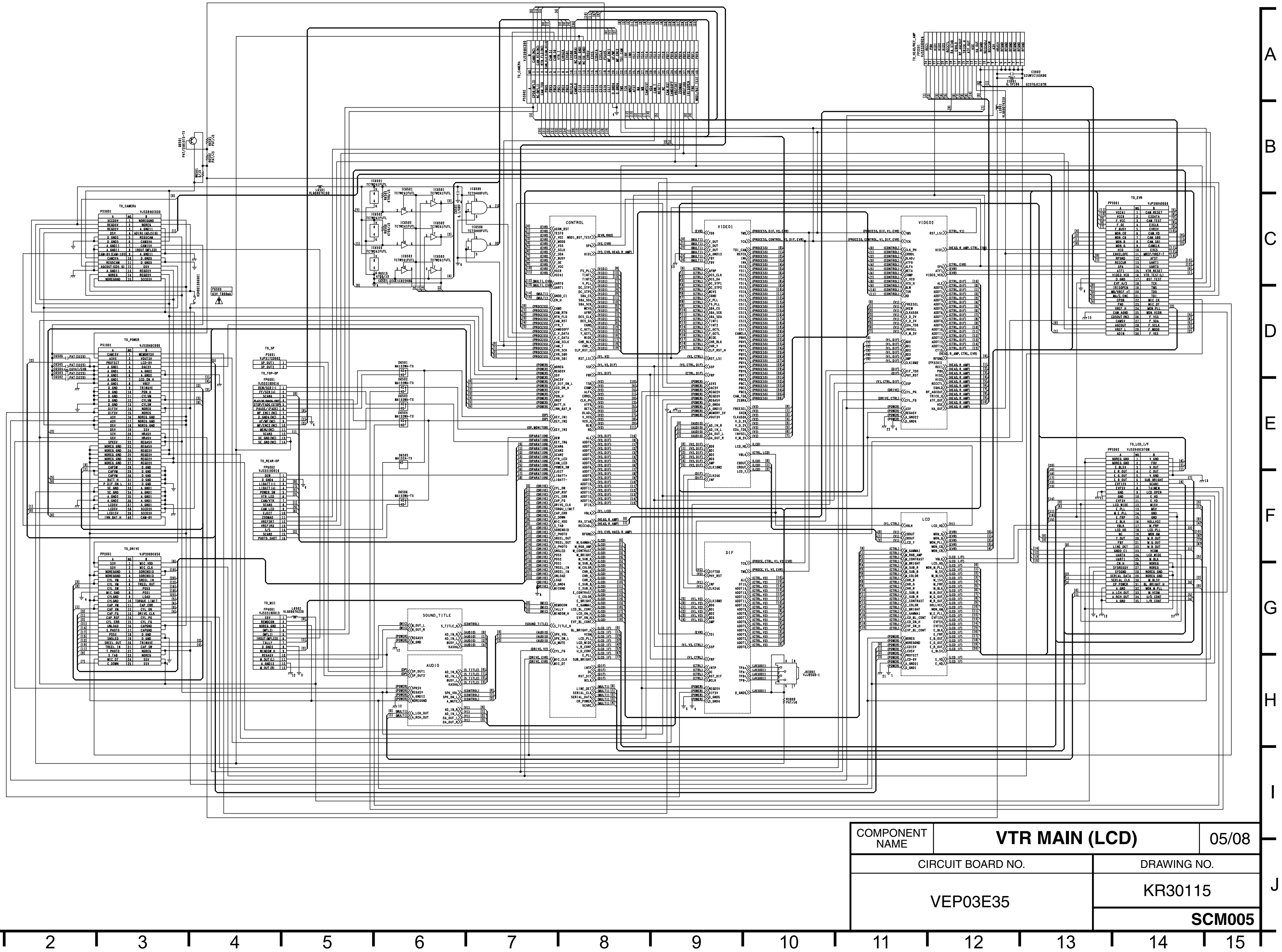
COMPONENT NAME	VTR MAIN (LCD)	04/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP03E35	KR30115	
	SCM004	



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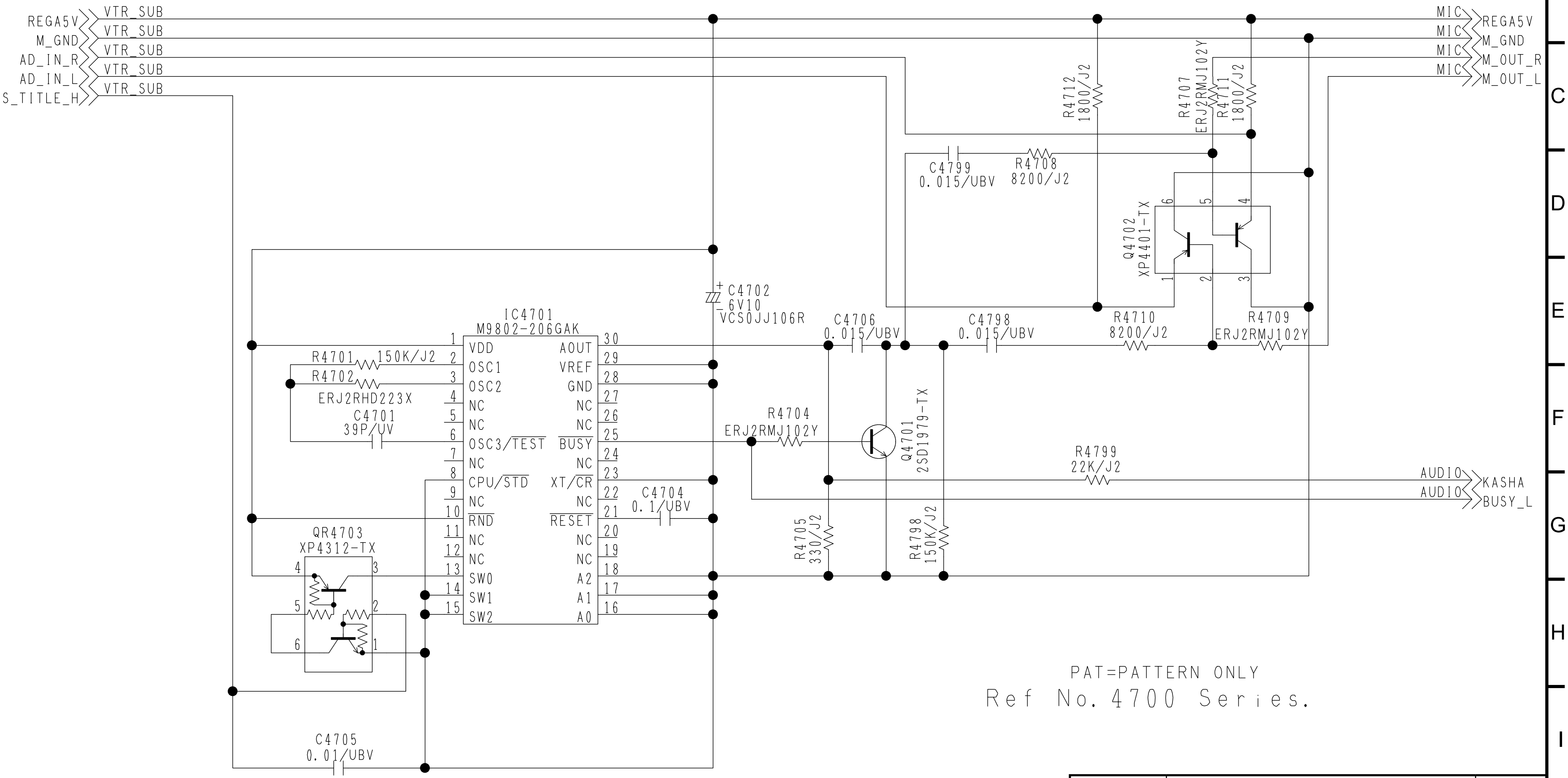
TO_CAMERA
TO_POWER
TO_DRIVE
TO_SP
TO_TOP-OP
TO_REAR-OP
TO_MIC
CONTROL
VIDEO1
VIDEO2
DIF
LCD
SOUND_TITLE
AUDIO
TO_EVR
TO_LCD_I/F
TO_HEAD/REC_AMP

COMPONENT NAME	VTR MAIN (LCD)	05/08
CIRCUIT BOARD NO.		DRAWING NO.
VEP03E35		KR30115
		SCM005


REGA5V
M_GND
AD_IN_R
AD_IN_L
S_TITLE_H
VTR_SUB
VTR_SUB
VTR_SUB
VTR_SUB
VTR_SUB
MIC
MIC
MIC
MIC
REGA5V
M_GND
M_OUT_R
M_OUT_L
R4712
1800/J2
R4707
ERJ2RMJ102Y
R4711
1800/J2
C4799
0.015/UBV
R4708
8200/J2
Q4702
XP4401-TX
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3
C4702
6V10
VCS0JJ106R
IC4701
M9802-206GAK
1 VDD
2 OSC1
3 OSC2
4 NC
5 NC
6 OSC3/TEST
7 NC
8 CPU/STD
9 NC
10 RND
11 NC
12 NC
13 SW0
14 SW1
15 SW2
AOUT 30
VREF 29
GND 28
NC 27
NC 26
BUSY 25
NC 24
XT/CR 23
NC 22
RESET 21
NC 20
NC 19
A2 18
A1 17
A0 16
R4701
150K/J2
R4702
ERJ2RHD223X
C4701
39P/UV
C4706
0.015/UBV
C4798
0.015/UBV
R4710
8200/J2
R4709
ERJ2RMJ102Y
R4704
ERJ2RMJ102Y
Q4701
2SD1979-TX
R4799
22K/J2
AUDIO
AUDIO
KASHA
BUSY_L
C4704
0.1/UBV
QR4703
XP4312-TX
4
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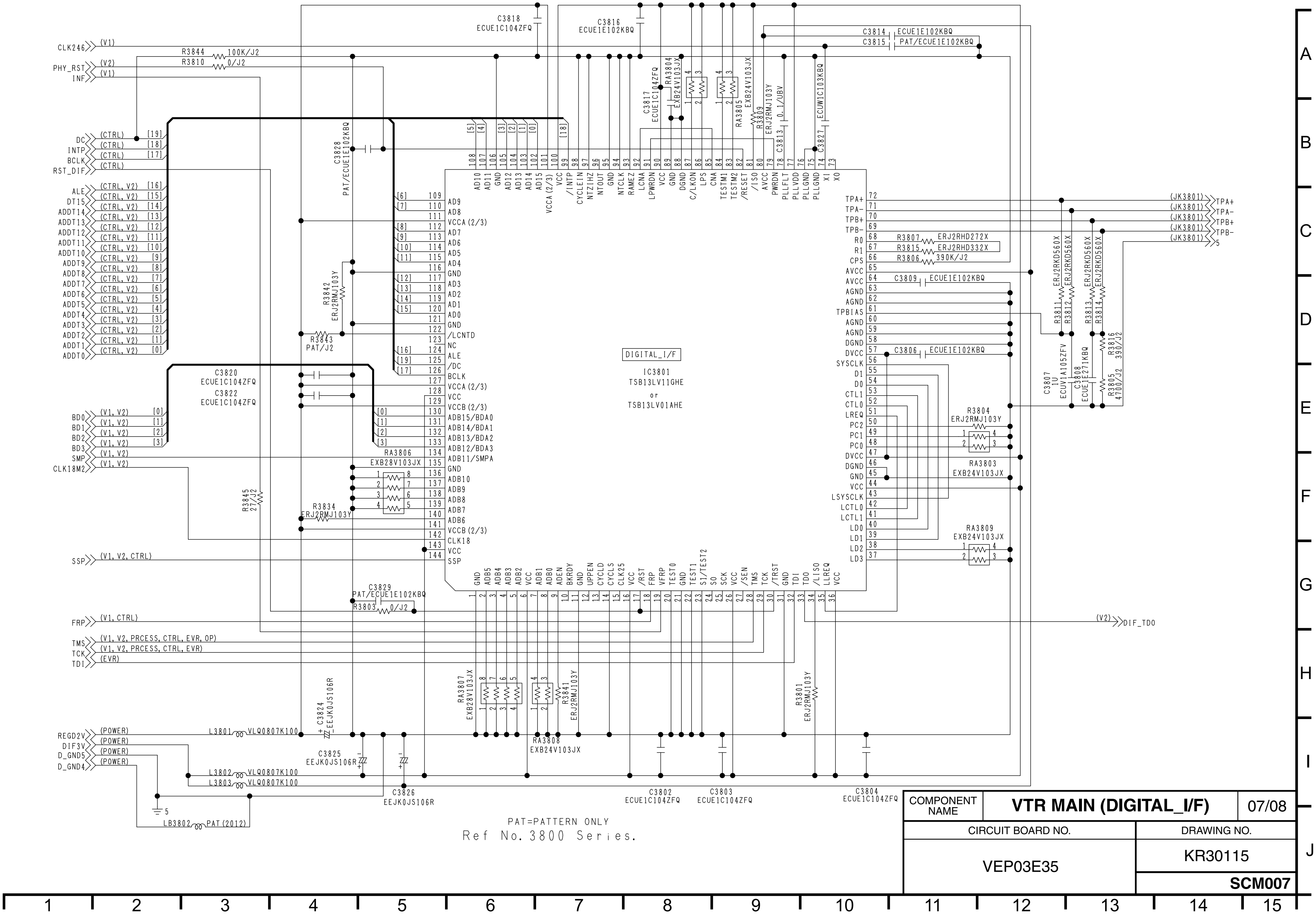
1
R4705
330/J2
R4798
150K/J2
C4705
0.01/UBV

PAT=PATTERN ONLY

Ref No.4700 Series.

COMPONENT NAME	VTR MAIN (SOUND TITLE)	06/08
CIRCUIT BOARD NO.		DRAWING NO.
VEP03E35		KR30115
		SCM006


DIGITAL_I/F
IC3801
TSB13LV11GHE
or
TSB13LV01AHE
CLK246
PHY_RST
INF
DC
INTP
BCLK
RST_DIF
ALE
DT15
ADDT14
ADDT13
ADDT12
ADDT11
ADDT10
ADDT9
ADDT8
ADDT7
ADDT6
ADDT5
ADDT4
ADDT3
ADDT2
ADDT1
ADDT0
BD0
BD1
BD2
BD3
SMP
CLK18M2
SSP
FRP
TMS
TCK
TDI
REGD2V
DIF3V
D_GND5
D_GND4
TPA+
TPA-
TPB+
TPB-
DIF_TDO
R3844 100K/J2
R3810 0/J2
C3818 ECUE1C104ZFQ
C3816 ECUE1E102KBQ
C3814 ECUE1E102KBQ
C3815 PAT/ECUE1E102KBQ
C3817 ECUE1C104ZFQ
RA3804 EXB24V103JX
RA3805 EXB24V103JX
R3809 ERJ2RMJ103Y
C3813 0.1/UBV
C3827 ECUW1C103KBQ
C3828 PAT/ECUE1E102KBQ
R3842 ERJ2RMJ103Y
R3843 PAT/J2
C3820 ECUE1C104ZFQ
C3822 ECUE1C104ZFQ
RA3806 EXB28V103JX
R3834 ERJ2RMJ103Y
R3845 27/J2
C3829 PAT/ECUE1E102KBQ
R3803 0/J2
R3807 ERJ2RHD272X
R3815 ERJ2RHD332X
R3806 390K/J2
C3809 ECUE1E102KBQ
C3806 ECUE1E102KBQ
R3811 ERJ2RKD560X
R3812 ERJ2RKD560X
R3813 ERJ2RKD560X
R3814 ERJ2RKD560X
R3816 390/J2
C3807 1U ECUV1A105ZFV
C3808 ECUE1E271KBQ
R3805 4700/J2
R3804 ERJ2RMJ103Y
RA3803 EXB24V103JX
RA3809 EXB24V103JX
RA3807 EXB28V103JX
RA3808 EXB24V103JX
R3841 ERJ2RMJ103Y
R3801 ERJ2RMJ103Y
C3824 EEJK0JS106R
C3825 EEJK0JS106R
C3826 EEJK0JS106R
L3801 VLQ0807K100
L3802 VLQ0807K100
L3803 VLQ0807K100
LB3802 PAT(2012)
C3802 ECUE1C104ZFQ
C3803 ECUE1C104ZFQ
C3804 ECUE1C104ZFQ
(JK3801)
(CTRL)
(CTRL,V2)
(V1,V2)
(V1,V2,CTRL)
(V1,CTRL)
(V1,V2,PRCESS,CTRL,EVR,OP)
(V1,V2,PRCESS,CTRL,EVR)
(EVR)
(POWER)
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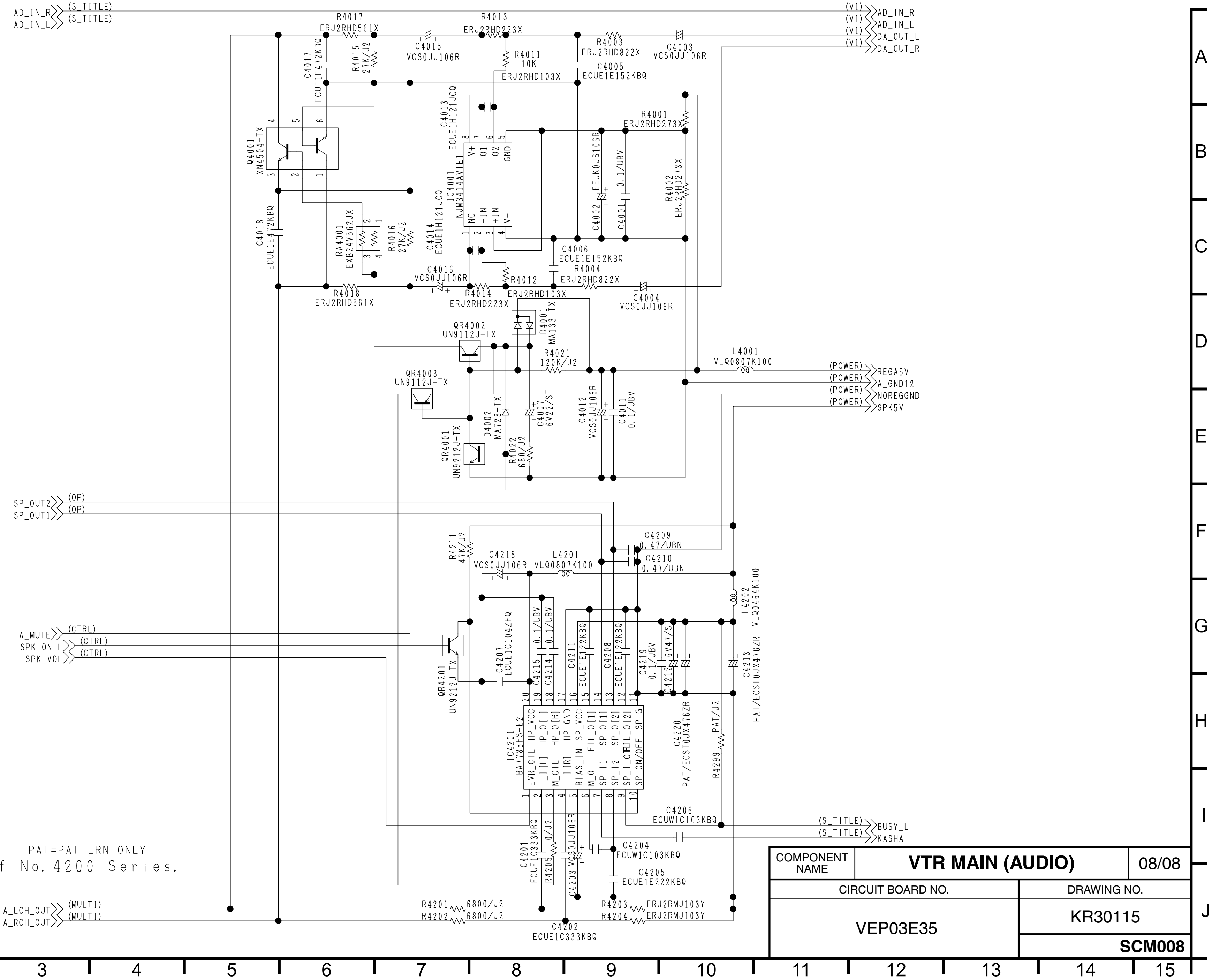
PAT=PATTERN ONLY

Ref No.3800 Series.

COMPONENT NAME	VTR MAIN (DIGITAL_I/F)	07/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP03E35	KR30115	
	SCM007	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AD_IN_L
(S_TITLE)
(V1)
DA_OUT_L
DA_OUT_R
R4017 ERJ2RHD561X
R4013 ERJ2RHD223X
C4015 VCS0JJ106R
R4003 ERJ2RHD822X
C4003 VCS0JJ106R
R4015 27K/J2
C4017 ECUE1E472KBQ
R4011 10K ERJ2RHD103X
C4005 ECUE1E152KBQ
C4013 ECUE1H121JCQ
IC4001 NJM3414AVTE1
R4001 ERJ2RHD273X
C4002 EEJK0JS106R
C4001 0.1/UBV
R4002 ERJ2RHD273X
Q4001 XN4504-TX
C4018 ECUE1E472KBQ
RA4001 EXB24V562JX
R4016 27K/J2
C4014 ECUE1H121JCQ
C4006 ECUE1E152KBQ
R4004 ERJ2RHD822X
C4016 VCS0JJ106R
R4012 ERJ2RHD103X
R4014 ERJ2RHD223X
R4018 ERJ2RHD561X
C4004 VCS0JJ106R
QR4002 UN9112J-TX
D4001 MA133-TX
R4021 120K/J2
L4001 VLQ0807K100
(POWER)
REGA5V
A_GND12
NOREGGND
SPK5V
QR4003 UN9112J-TX
D4002 MA728-TX
C4007 6V22/ST
C4012 VCS0JJ106R
C4011 0.1/UBV
QR4001 UN9212J-TX
R4022 680/J2
SP_OUT2
SP_OUT1
(OP)
R4211 47K/J2
C4218 VCS0JJ106R
L4201 VLQ0807K100
C4209 0.47/UBN
C4210 0.47/UBN
L4202 VLQ0464K100
A_MUTE
SPK_ON_L
SPK_VOL
(CTRL)
QR4201 UN9212J-TX
C4207 ECUE1C104ZFQ
C4215 0.1/UBV
C4214 0.1/UBV
C4211 ECUE1E122KBQ
C4208 ECUE1E122KBQ
C4219 0.1/UBV
C4212 6V47/ST
C4213 PAT/ECST0JX476ZR
C4220 PAT/ECST0JX476ZR
R4299 PAT/J2
IC4201 BA7785FS-E2
EVR_CTL HP_VCC
L_I[L] HP_O[L]
M_CTL HP_O[R]
L_I[R] HP_GND
BIAS_IN SP_VCC
M_O FIL_O[1]
SP_I1 SP_O[1]
SP_I2 SP_O[2]
SP_I_CTL FIL_O[2]
SP_ON/OFF SP_G
C4206 ECUW1C103KBQ
BUSY_L
KASHA
C4201 ECUE1C333KBQ
R4205 0/J2
C4203 VCS0JJ106R
C4204 ECUW1C103KBQ
C4205 ECUE1E222KBQ
A_LCH_OUT
A_RCH_OUT
(MULTI)
R4201 6800/J2
R4202 6800/J2
R4203 ERJ2RMJ103Y
R4204 ERJ2RMJ103Y
C4202 ECUE1C333KBQ
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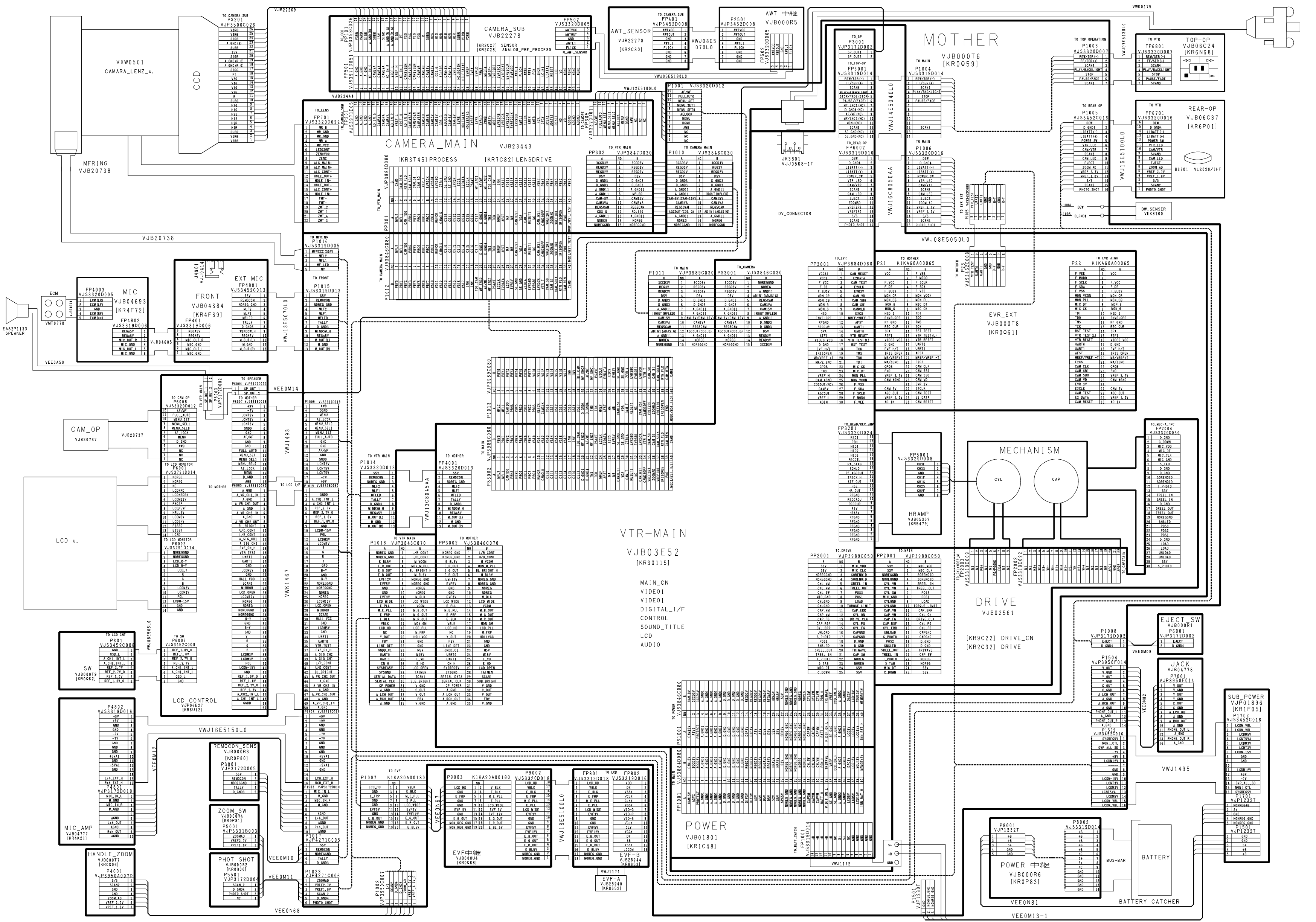
PAT=PATTERN ONLY
Ref No.4200 Series.

COMPONENT NAME	VTR MAIN (AUDIO)	08/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP03E35	KR30115	
	SCM008	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CCD
MFRING
VJB20738
CAMERA_SUB
VJB22278
AWT_SENSOR
VJB22270
[KR2C30]
AWT 中継
VJB000R5
MOTHER
VJB000T6
[KR0Q59]
TOP-OP
VJB06C24
[KR6N68]
REAR-OP
VJB06C37
[KR6P01]
CAMERA_MAIN
VJB23443
[KR3T45] PROCESS
[KR7C82] LENSDRIVE
DV_CONNECTOR
JK3801
DW_SENSER
VEK8160
MIC
VJB04693
[KR4F72]
FRONT
VJB04684
[KR4F69]
EXT MIC
EA2P11SD
SPEAKER
CAM_OP
VJB20737
LCD u.
LCD_CONTROL
VJB06E21
[KR6U12]
SW
VJB000T9
[KR0Q62]
MIC_AMP
VJB04777
[KR4K21]
HANDLE_ZOOM
VJB000T7
[KR0Q60]
REMOCON_SENS
VJB000R3
[KR0P80]
ZOOM_SW
VJB000R4
[KR0P81]
PHOT SHOT
VJB00052
[KR0Q00]
VTR-MAIN
VJB03E52
[KR30115]
MAIN_CN
VIDEO1
VIDEO1
DIGITAL_I/F
CONTROL
SOUND_TITLE
LCD
AUDIO
EVR_EXT
VJB000T8
[KR0Q61]
MECHANISM
CYL
CAP
HRAMP
VJB05352
[KR5479]
DRIVE
VJB02561
[KR9C22] DRIVE_CN
[KR2C32] DRIVE
EJECT_SW
VJB000R1
JACK
VJB04778
SUB_POWER
VJP01896
[KR1F05]
POWER
VJB01801
[KR1C48]
EVF中継
VJB000U4
[KR0Q68]
EVF-B
VJB28244
[KR8653]
EVF-A
VJB28240
[KR8652]
POWER 中継
VJB000R6
[KR0P83]
BATTERY
BUS-BAR
BATTERY CATCHER
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COMPONENT NAME	**INTERCONNECTION**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
	KR9H76	
	SCM000	

FRAME & CASING PARTS ASSEMBLY (1)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VYK9889	SIDE CASE L ASS'Y	1	
2	VYK9757	BATTERY HOLDER ASS'Y	1	
3	VMD2796	TRIPOD FRAME	1	
4	VMP6654	TRIPOD FRAME ANGLE	1	
5	VMP6652	BELT HOOK ANGLE (F)	1	
6	VMC1685	CONNECTOR EARTH ANGLE	1	
7	VMP6847	DV TERMINAL ANGLE	1	
8	VGU7575	EJECT BUTTON	1	
9	VYQ1447	AWT SENSOR ASS'Y	1	
10	VWJ08E5070L0	FFC	1	
11	VEE0M08	EJECT CABLE	1	
12	VEE0N82	JACK CABLE	1	
13	VEE0N80	BATTERY CABLE	1	
14	VMP6848	WEIGHT ANGLE	1	
15	VMP6742	BATTERY TERMINAL ANGLE	1	
16	VGQ5990	BATTERY CASE COVER	1	
17	VWK0175	DV CABLE	1	
18	VMT1182	CUSHION	2	
19	SHR330	CLAMPER	1	
20	VMP6749	BATTERY ANGLE	1	
21	VMT0776	GASKET (F)	2	
22	VMT0876	GASKET	1	
23	VSC5154	SIDE CASE SHIELD SHEET L	1	
24	VJF1417	CONNECTOR CAP	1	
25	VJF1418	DV CAP	1	
26	VMT0906	GASKET	4	
28	VGQ6037	BATTERY LOCK HOLDER	1	
29	VGU8749	BATTERY LOCK BUTTON	1	
30	VMB3314	DOOR LOCK SPRING	1	
31	VEK9224	BATTERY TERMINAL ASS'Y	1	
32	K4ZZ04000026	BATTERY TERMINAL	1	
33	VWJ1465	BUS FLEXIBLE ASS'Y	1	
43	VMP6666	MIC P.C.B. HOLDER ANGLE	1	
44	VMP6650	HEDLE HOLDER ANGLE (R)	1	
46	VWJ13E5070L0	FFC	1	
48	VMP6653	BELT HOOK ANGLE (R)	1	
51	VKMS2489	MIC CASE (A)	1	
52	VKMS2518	MIC CASE (B)	1	
53	VYQ1521	MIC NET ASS'Y	1	
54	VMP5466	FRONT ANGLE	1	
55	VGQ4750	MIC SHEET	1	
56	VMP6649	HANDLE HOLDER ANGLE (F)	1	
58	VMT1192	CCD HOLDER CUSHION	1	
59	VXU1598	PHOTO SHOT BUTTON ASS'Y	1	
64	VYK9729	GRIP COVER ASS'Y	1	
66	VEK9259	GRIP OP P.C.BOARD K	1	
67	VMP6760	REMOCON P.C.B. FIX ANGLE	1	
68	VWJ16E5130L0	FFC	1	
69	VEE0M10	REMOCON SENSOR CABLE	1	
70	VEE0M11	ZOOM PHOTO CABLE	1	
72	VMP6796	POWER P.C.BOARD ANGLE	1	
73	VMZ3127	BATTERY INSULATION SHEET	1	
75	VFB0209	GRIP BELT	1	
76	VMG1373	BELT BLIND CAP	1	
77	VMP6741	BEL FIX ANGLE	1	
78	VGQ4494	S/S LEVER	1	
79	VGQ4272	S/S BUTTON PIECE	1	
80	VKW2419	AWT WINDOW	1	
81	VGU7577	S/S BUTTON	1	
82	VMT0906	GASKET	1	
83	VYQ2110	ZOOM PLATE ASS'Y	1	
85	VMT1197	ZOOM BLIND SHEET	1	
86	VGU8745	T/W BUTTON PLATE	1	
87	VGQ6035	ZOOM LEVER	1	
88	VMS6855	ZOOM SHAFT	1	
89	VGQ5992	GRIP SW BRACKET	1	
90	VGQ6046	ZOOM GEAR	1	
91	XUC2FP	E-RING	1	
92	VEK8453	ZOOM VR ASS'Y	2	
93	VXP1871	MF RING ASS'Y	1	
94	VGQ6044	MF RING BASE	1	
95	VSC5205	LENS COVER F SHIELD	1	
96	VYF2741	LENS CASE R ASS'Y	1	
100	VMT1201	SOFT GASKET	3	

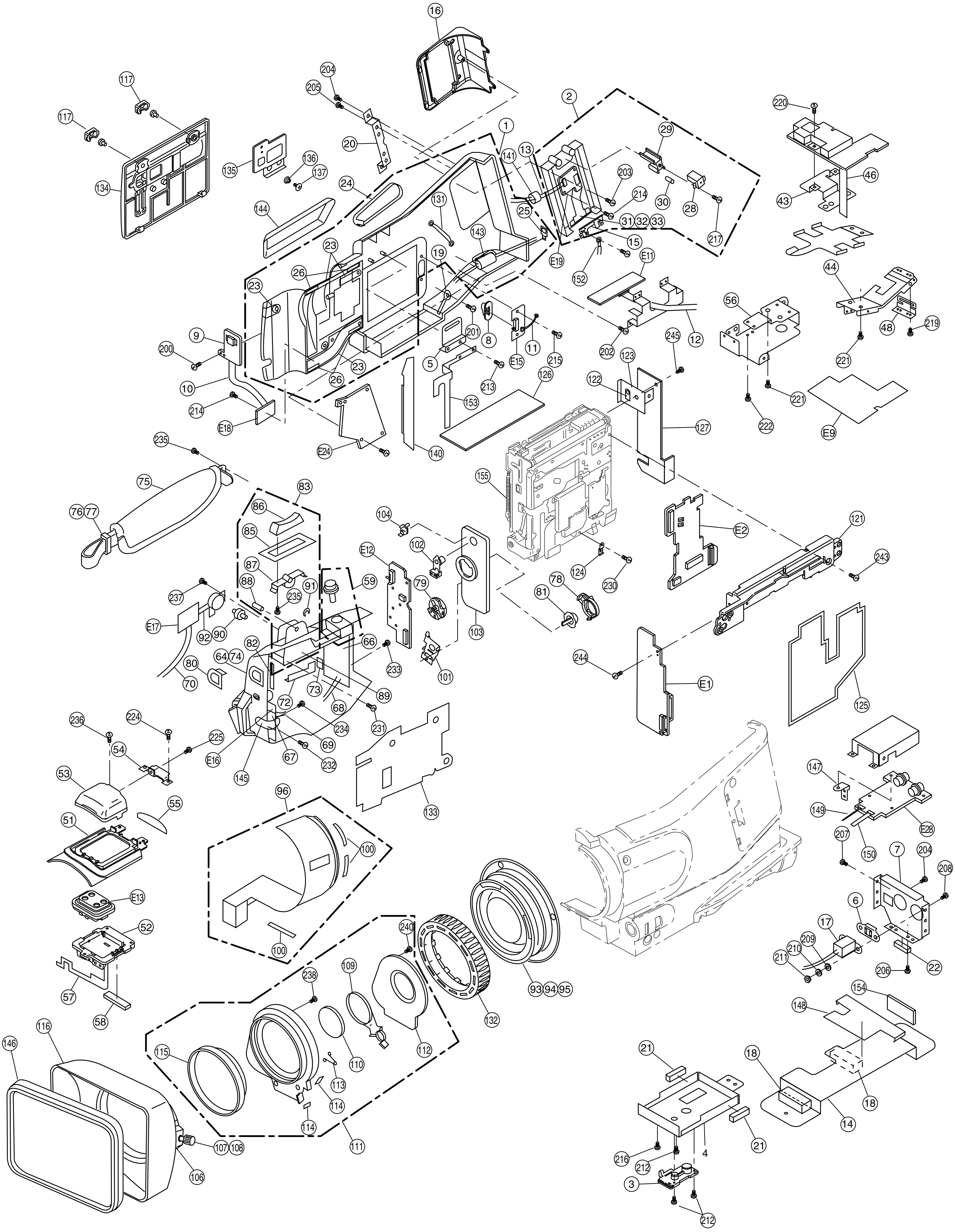
Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
101	VMC1271	S/S CLICK SPRING	1	
102	VGU7576	VTR CHANGE BUTTON	1	
103	VGQ6071	OPERATION P.C.B. PLATE	1	
104	VGL0764	VTR CHANGE PANEL	1	
106	VFC3571	LENZ HOOD ASS'Y	1	
107	VHD1412	LENZ HOOD FIX SCREW	1	
108	XUC15FX	E-RING	1	
109	VGQ5993	ND HOLDER ASS'Y	1	
110	VDL1165	ND FILTER	1	
111	VYQ2091	ND FILTER ASS'Y	1	
112	VKM5517	NDF CASE (R)	1	
113	VMB3469	HOOK SPRING	1	
114	VMT1176	PAD	2	
115	VYQ2123	MC PROTECTOR	1	
116	VKF3305	HOOD CAP	1	
117	VGP4575	SCREW CAP	2	
121	VYK7875	MECH HOLDER ASS'Y	1	
122	EYHS77Y7	DEW SENSOR	1	
123	VMP6670	DEW HOLDER ANGLE	1	
124	VMP6667	MECH HOLDER ANGLE	1	
125	VMZ2708	MECH SHIELD BARRIER	1	
126	VGF0879	MECH SHIELD PLATE	1	
127	VGQ6149	DEW SENSOR PLATE	1	
131	VEE0N38	GND	1	
132	VMG1357	FOCUS RING	1	
133	VSC5219	GRIP SHIELD	1	
134	VYF2740	CASSETTE COVER ASS'Y	1	
135	VMA0H90	CASSETTE HOLDER BASE	1	
136	VMB3148	CASSETTE COVER SPRING	1	
137	VHD1105	SCREW	1	
140	VSC5204	POWER SHIELD	1	
141	J0KG00000011	FERRITE CORE	1	
143	VSQ0819	DC LINE CORE	1	J0KG00000013
144	VGP5438	CASSETTE COVER (LOWER)	1	
145	VKW2418	REMOTE CONTROL WINDOW	1	
146	VFC3571	LENS FOOD	1	
147	VMP6846	C.B.A. ANGLE	1	
148	VMP6850	WEIGHT ANGLE	1	
149	VEE0N79	CABLE	1	
150	VWJ16E5150L0	FLEXIBLE CABLE	1	
152	VEE0P60	EARTH CABLE	1	
153	VMP6923	EARTH ANGLE	1	
154	VMZ3181	INSULATION SHEET	1	
155	VXY1598	MECHANISM ASS'Y	1	
200	XTN2+4G	SCREW	1	
201	XTV3+6GFZ	SCREW	2	
202	XQN16+CJ3	SCREW	1	
203	XTV26+8G	SCREW	8	
204	XSN3+6FZ	SCREW	3	
205	XTV3+10G	SCREW	2	
206	XYN3+C6	SCREW	4	
207	XTB3+8FFZ	SCREW	1	
208	XSN26+12FZ	SCREW	2	
209	XWE26	WASHER	2	
210	XWA26B	WASHER	2	
211	XNG26EFXS	NUT	2	
212	XQN16+B5FZ	SCREW	3	
213	XQN2+CJ6FZ	SCREW	2	
214	XTN2+6G	SCREW	3	
215	XTN26+4G	SCREW	2	
216	XSB2+5FZ	SCREW	2	
217	XTN26+6B	SCREW	2	
219	XYN26+K6	SCREW	2	
220	XYN2+C6	SCREW	2	
221	XTV4+8G	SCREW	4	
222	XYN26+C6	SCREW	2	
224	XQN16+CJ5	SCREW	3	
225	XQN2+B25	SCREW	1	
226	XQN2+C4	SCREW	4	
230	XQN2+CJ6FZ	SCREW	7	
231	XTB3+10GFZ	SCREW	3	
232	XTN26+6J	SCREW	2	
233	XQN2+BJ4FZ	SCREW	3	

FRAME & CASING PARTS ASSEMBLY (1)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
234	XYN3+K6	SCREW	2	
235	XTB26+6GFZ	SCREW	4	
237	XQN2+BJ4	SCREW	3	
238	XQN2+CJ5	SCREW	3	
240	XQN2+AG4	SCREW	6	
243	VHD0866	SCREW	3	
244	XQN16+BJ4FZ	SCREW	1	
245	XYN3+K5	SCREW	1	
E1	VEP01801D	POWER C.B.A.	1	
E2	VEP02561A	DRIVE C.B.A.	1	
E9	VEP04684A	FRONT C.B.A.	1	
E10	VEP04778A	JACK C.B.A.	1	
E11	VEP06C24A	TOP OPERATION C.B.A.	1	
E12	VEP06C37A	REAR OPERATION C.B.A.	1	
E13	VEP04693A	MIC C.B.A.	1	
E15	VEP000R1A	EJECT C.B.A.	1	
E16	VEP000R3A	REMOTE CONTROL C.B.A.	1	
E17	VEP000R4A	GRIP ZOOM SW C.B.A.	1	
E18	VEP000R5A	AWT INT C.B.A.	1	
E19	VEP000R6A	BATTERY INT C.B.A.	1	
E22	VEP000S2A	PHOTO SHOT SW C.B.A.	1	
E24	VEP01896A	SUB POWER C.B.A.	1	
E28	VEP04777A	MIC AMP C.B.A.	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks

FRAME & CASING PARTS ASSEMBLY (1)



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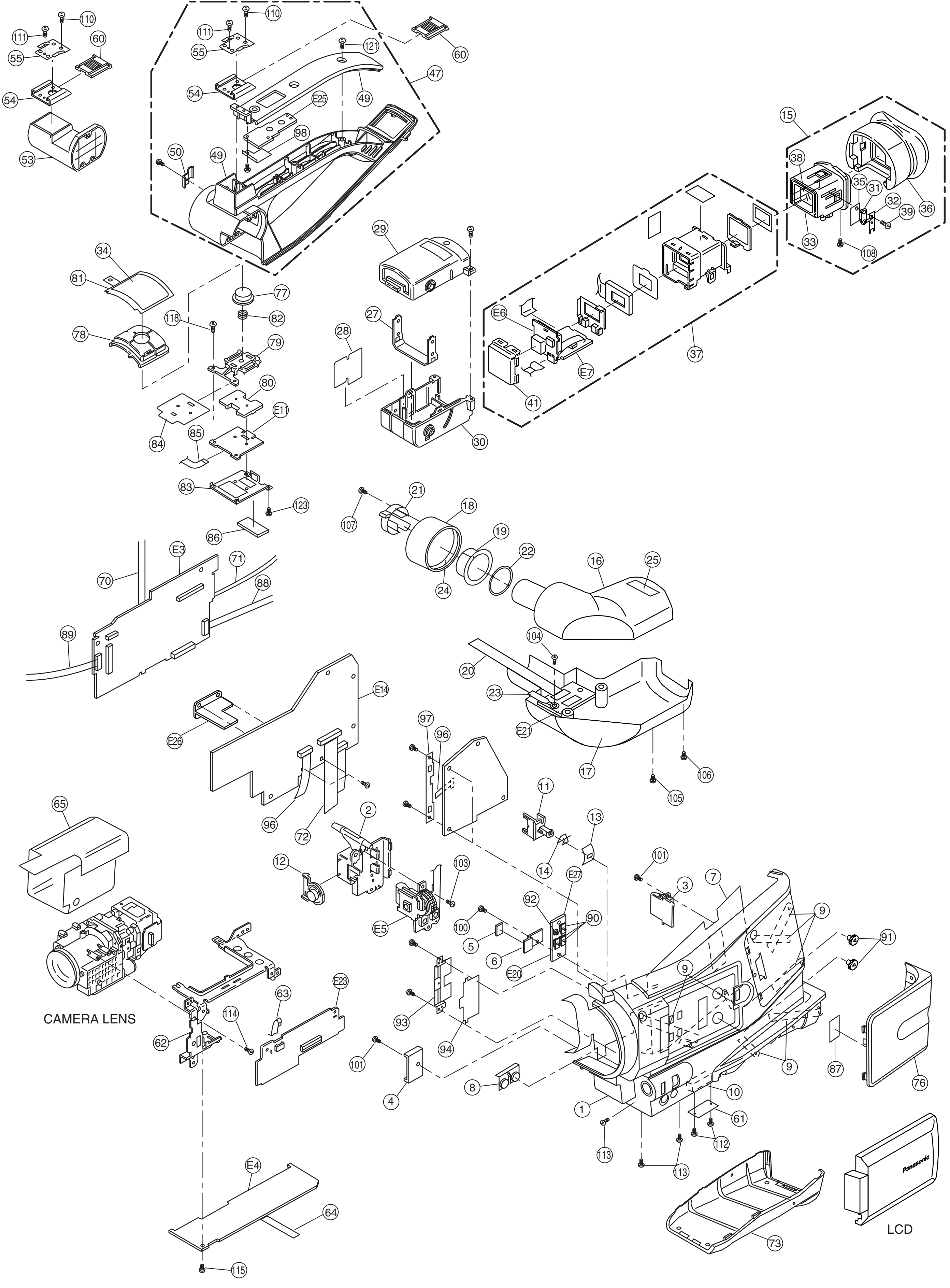
FRAME & CASING PARTS ASSEMBLY(2)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VYK9892	SIDE CASE R ASS'Y	1	
2	VGQS1014	C.B.A. HOLDER	1	
3	VYK7879	SPEAKER HOLDER ASS'Y	1	
4	VMP6661	OPERATE BUTTON ANGLE	1	
5	VMT1192	CCD HOLDER CUSHION	1	
6	VMP6844	CCD HOLDER ANGLE	1	
8	VGU8746	MENU BUTTON	1	
10	VMT0771	GASKET (A)	1	
11	VGU7776	AUTO/MANUAL KNOB	1	
12	VGU7777	FOCUS BUTTON	1	
13	VGQ4813	KNOB COVER	1	
14	VMB3197	KNOB COVER SPRING	1	
15	VYK9888	EVF HOLD CASE ASS'Y	1	
16	VKM5614	EVF HOLD CASE (UPPER)	1	
17	VKM5615	EVF HOLD CASE (LOWER)	1	
18	VGQ5994	EVF RING	1	
19	VGQ6067	EVF LOCK RING	1	
20	VEE0N39	SHIELD FLEXIBLE	1	
21	VMX3075	BUSH	1	
22	VMG1372	O-RING	1	
23	VEE0N39	GND	1	
24	VMT1202	VF RING TAPE	1	
25	VMZ3140	VF UPPER SPACER	1	
27	VMP5464	EVF CASE ANGLE	1	
28	VGQ4624	EVF BARRIER	1	
29	VKMS2495	EVF UPPER CASE	1	
30	VYKS1861	EVF LOWER CASE ASS'Y	1	
31	VGQ4585	EVF ROTARY HOLDER	1	
32	VMC1365	EVF ROTARY SPRING	1	
33	VGK2684	EVF HOLD CASE	1	
34	VGQ6068	EVF THRUST BEAD	1	
35	VGQ6096	EVF SLIDE PLATE	1	
36	VYK8120	EYE CAP HOLDER ASS'Y	1	
37	VYQ2169	EVF LCD HOLDER ASS'Y	1	
38	VMZ3141	VF SLIDE BASE	1	
39	VHD1127	SCREW	4	
41	VSC4665	LCD SHIELD CASE	1	
47	VYH0294	HANDLE ASS'Y	1	
49	VYF2769	HANDLE COVER	1	
50	VJF0804	CABLE CLAMPER	1	
53	VYQ2096	MIC HOLDER PLATE ASS'Y	1	
54	VMP2407	SHOE	2	
55	VMC1288	SHOE SPRING	2	
59	VGU8747	PHOTO BUTTON	1	
60	VGQ4811	SHOE COVER	2	
61	VGQ5988	EVR BLIND COVER	1	
62	VYQ1507	CAMERA FRAME ASS'Y	1	
63	VWJ05E5180L0	FFC	1	
64	VWJ12E5100L0	FFC	1	
65	VSC5200	CCD SHIELD COVER	1	
70	VWJ14E5040L0	FFC	1	
71	VEE0M14	SPEAKER CABLE K	1	
72	VWJ1467	FFC	1	
73	VMG1355	SHOULDER PAD	1	
76	VGP5435	FACE PANEL	1	
77	VGU7779	VTR OPERATION BUTTON (A)	1	
78	VGU7780	VTR OPERATION BUTTON (B)	1	
79	VGQ4598	VTR OPERATION HOLDER	1	
80	VMG1070	VTR DEADEN SHEET	2	
81	VMP6651	VTR EARTH PLATE	1	
82	VMB2531	MODE KNOB SPRING	1	
83	VMP6628	VTR OPERATE BUTTON ANGLE	1	
84	VGQ4853	VTR BARRIER	2	
85	VWJ07E5130L0	FFC	1	
86	VMT0771	GASKET (A)	1	
87	VGQ4631	SPEAKER NET	1	
88	VWJ16C8050AA	FFC	1	
89	VWJ13C8045AA	FFC	1	
90	VGU8883	SLIDE KNOB	3	
91	VGU8881	VR KNOB	2	
92	VGU7459	SW KNOB	1	
93	VMP6845	HINGE HOLD ANGLE	1	
94	VGQ6188	CABALE BARRIER	1	
96	VWJ08E5050L0	FLEXIBLE CABLE	1	
97	VGQ6273	CABLE PROTECT SHEET	1	
98	VMZ3182	C.B.A. INSULATION SHEET	1	
100	XTV3+6GFZ	SCREW	4	
101	XQN2+BJ4	SCREW	5	
103	XQN16+BJ4FZ	SCREW	2	
104	XTV26+8G	SCREW	2	
105	XTN3+8GFZ	SCREW	5	
106	XTN26+8GFZ	SCREW	3	
107	XTN3+6J	SCREW	2	
108	XQN16+BJ3FZ	SCREW	2	
110	XQS2+AJ7FZ	SCREW	8	
112	XQN16+B5FZ	SCREW	2	
113	XSB2+5FZ	SCREW	3	
114	VMS5604	SCREW	3	
115	XQN2+B3	SCREW	1	
118	XQN16+B4FN	SCREW	2	
121	XTB3+8GFZ	SCREW	16	
124	XYN2+C6	SCREW	2	
E3	VEP03E35D	VTR MAIN C.B.A.	1	
E4	VEP23443A	CAMERA MAIN C.B.A.	1	
E5	VEP20737B	CAMERA OPERATION C.B.A.	1	
E6	VEP28240D	E.V.F (A) C.B.A.	1	
E7	VEP28244B	E.V.F (B) C.B.A.	1	
E11	VEP06C24A	TOP OPERATION C.B.A.	1	
E14	VEP000R0A	MOTHER C.B.A.	1	
E20	VEP06E27A	LCD INT C.B.A.	1	
E21	VEP000S1A	EVF INT C.B.A.	1	
E23	VEP22268A	CAMERA SUB C.B.A.	1	
E25	VEP000T7A	ZOOM C.B.A.	1	
E26	VEP000T8A	EVR EXT C.B.A.	1	
E27	VEP000T9A	SW C.B.A.	1	

FRAME & CASING PARTS ASSEMBLY (2)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CAMERA LENS
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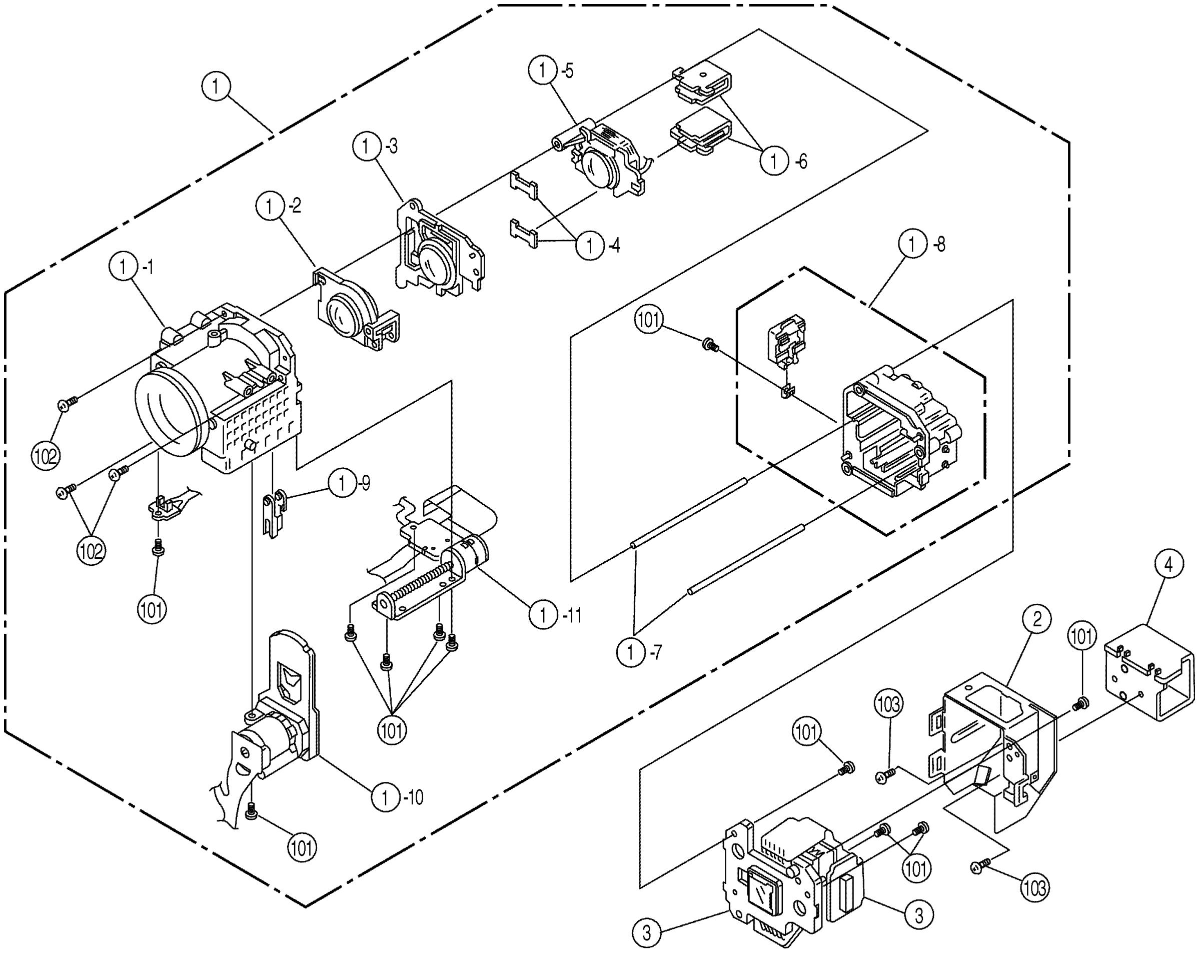
CAMERA LENS ASSEMBLY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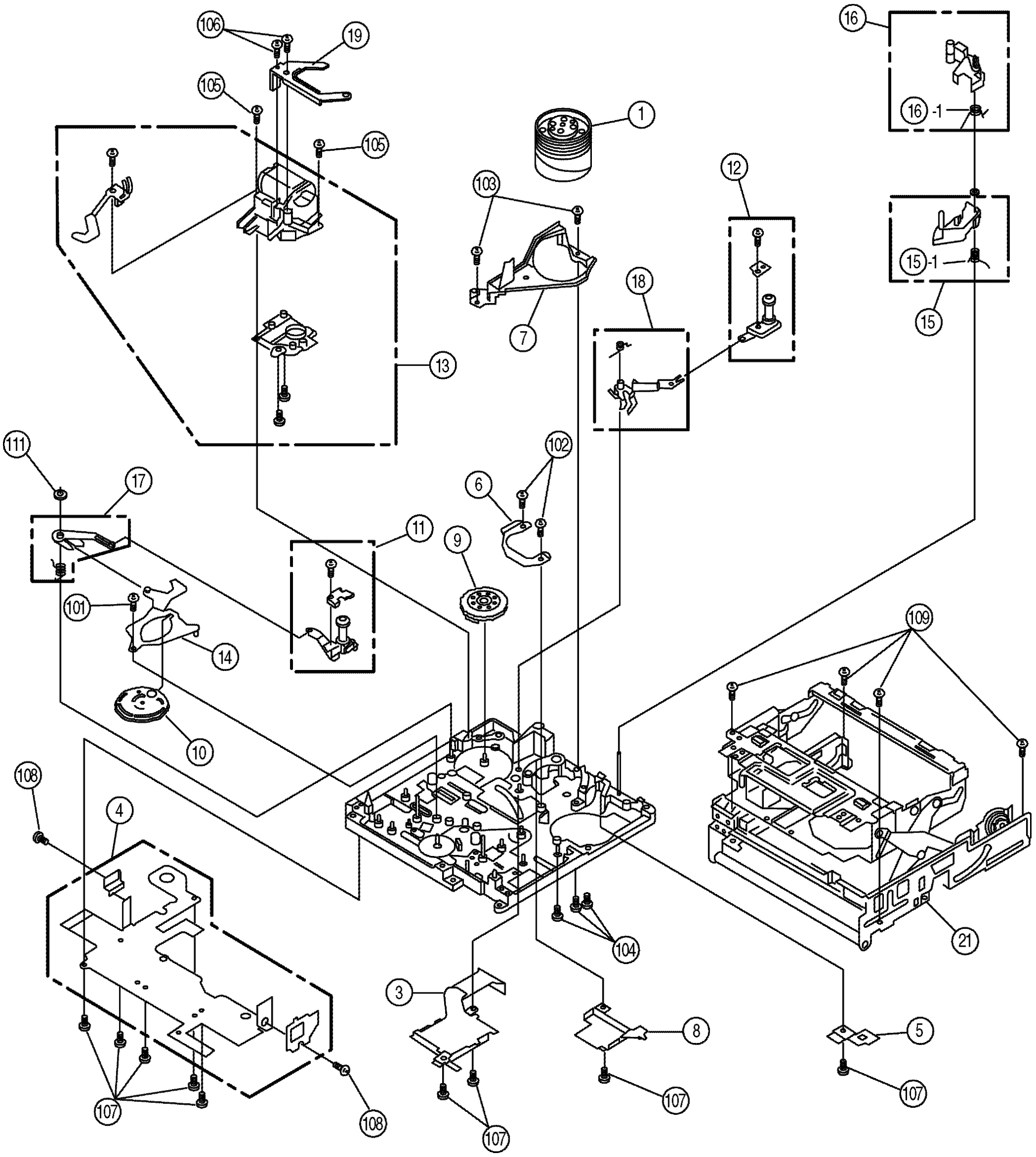
CAMERA LENS ASSEMBLY

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VXW0401	LENS ASS'Y	1	
1-1	VXQ0666	MAIN ASS'Y	1	
1-2	VXP1829	2ND MOVING FRAME ASS'Y	1	
1-3	VXQ0667	3RD LENS ASS'Y	1	
1-4	VMA9768	SIDE YOKE	2	
1-5	VXP1830	4TH MOVING FRAME ASS'Y	1	
1-6	VXA5946	YOKE ASS'Y	2	
1-7	VMS6230	GUIDE POLE	1	
1-8	VDW0506	MASTER FLANGE	1	
1-9	VML3277	2ND LACK	1	
1-10	VEK8197	LENS FLEX. CARD	1	
1-11	VEM0641	ZOOM MOTOR ASS'Y	1	
2	VSC4668	SHIELD CASE	1	
3	VXQ1004	PRISM ASS'Y	1	
3-1	VEP22269A	CCD FLEX. CARD C.B.A.	1	
4	VGQ4738	CCD PLATE	1	
101	XQN16+CJ5	SCREW	11	
102	XQN16+CJ8	SCREW	3	
103	XQN2+B3	SCREW	2	

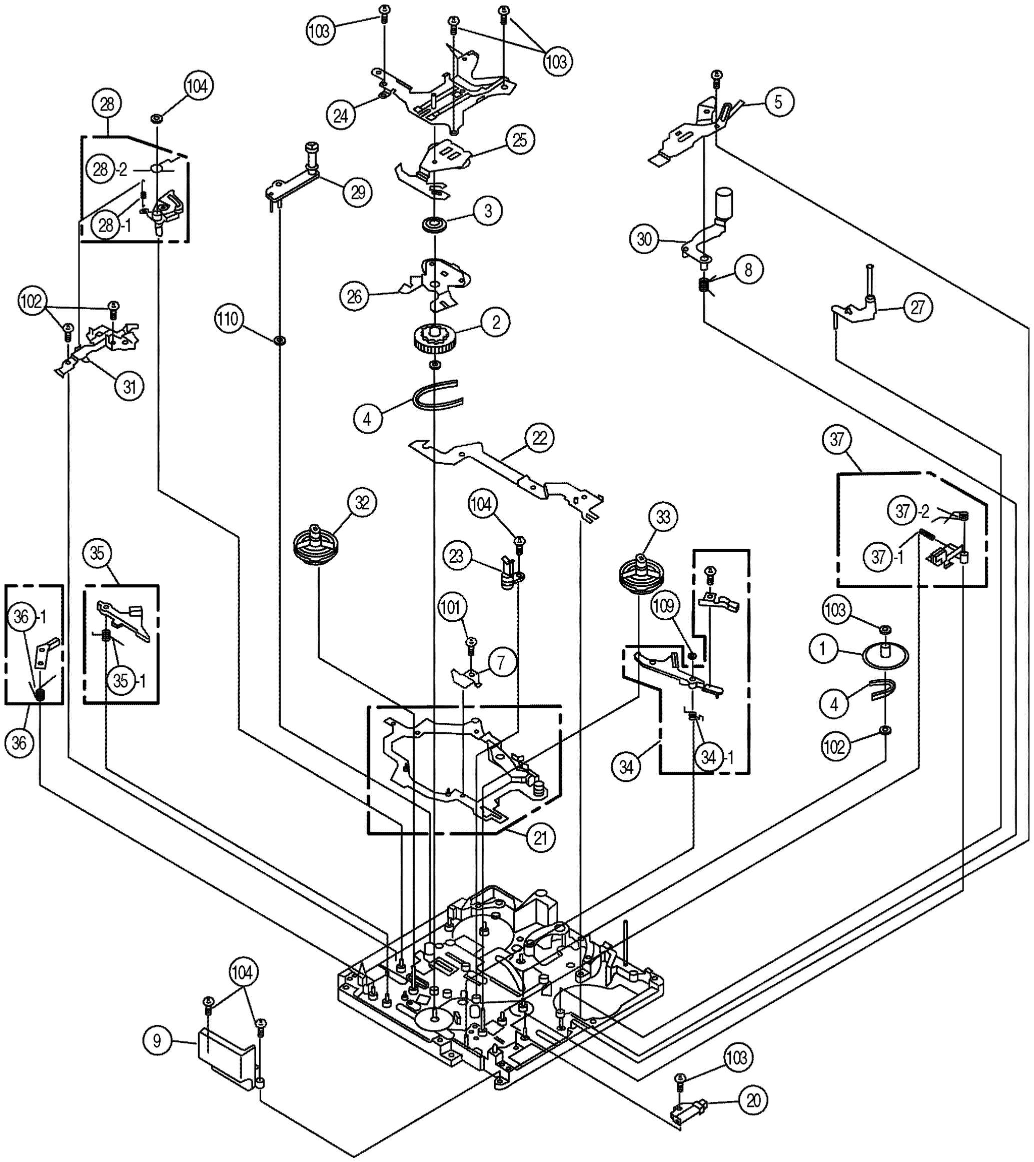
VCR MECHANISM ASSEMBLY(1)



VCR MECHANISM ASSEMBLY(1)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VEG1573	CYLINDER UNIT	1	
2	VEM0624	CAPSTAN MOTOR ASS'Y	1	
3	VEP05352A	HEAD AMP P.C.BOARD	1	
3-*	VSC4639	SHIELD CASE	1	
4	VES0928	FLEXIBLE CABLE	1	
5	VMA9708	CAPSTAN COVER	1	
6	VMA9179	RADON PLATE	1	
7	VMD2373	RAIL	1	
8	VSC4640	SHIELD CASE	1	
9	VSR0114	MODE SW	1	
10	VXA5407	CAM GEAR	1	
11	VXA5409	S BOAT ASS'Y	1	(M)
12	VXA5410	T BOAR ASS'Y	1	(M)
13	VXA5417	GEAR BOX	1	
14	VXA5612	RADON ARM ASS'Y	1	
15	VXL2461	T2 ARM ASS'Y	1	
15-1	VMB2789	T2 ARM SPRING	1	
16	VXL3103	CLEANING ARM ASS'Y	1	VXL2468 (M)
16-1	VMB2791	CLEANING ARM SPRING	1	
17	VXL2470	S1 ARM ASS'Y	1	
18	VXL2471	T1 ARM ASS'Y	1	
19	VMA9753	CYLINDER HOLD ANGLE	1	
20	VMB2777	CAPSTAN ADJ. SPRING	1	
21	VXA5387	GARAGE ASS'Y	1	
101	VHD0878	SCREW	1	
102	VHD0989	SCREW	2	
103	XQN14+B4	SCREW	2	
104	VXQ0439	SCREW	3	
105	XQN14+B35	SCREW	2	
106	XQN14+BQ4	SCREW	2	
107	XQN14+B15	SCREW	9	
108	XQN14+B2	SCREW	2	
109	VHD0882	SCREW	6	
110	XQN14+B4FZ	SCREW	1	
111	VMX2027	CUT WASHER	2	

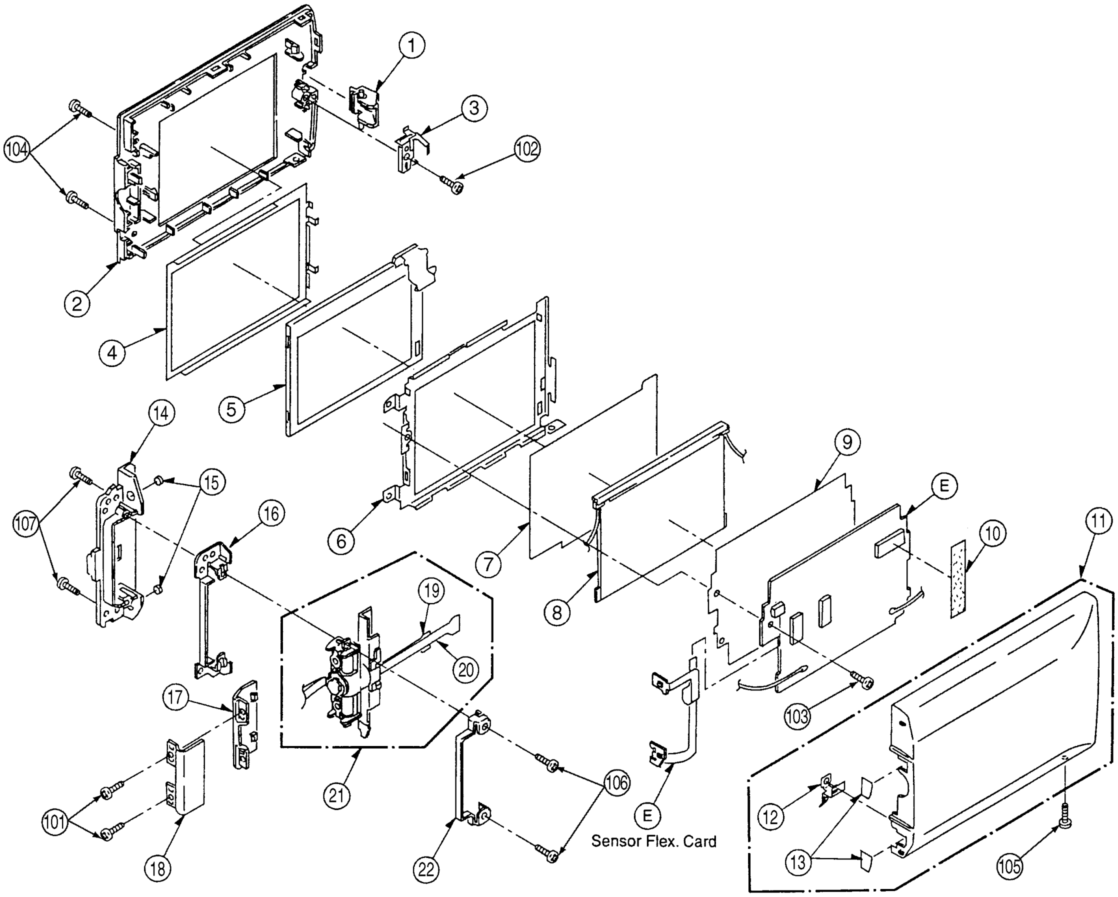
VCR MECHANISM ASSEMBLY(2)



VCR MECHANISM ASSEMBLY(2)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VDG1030	DRIVE PULLEY	1	
2	VDG1031	CENTER PULLEY	1	
3	VDG1032	SENSOR GEAR	1	
4	VDV0265	TIMING BELT	1	
5	VMA9178	PINCH PRESSURE PLATE	1	
7	VMA9181	BRAKE ROD SUPPORT (T)	1	
8	VMB2776	SPRING	1	
9	VSH0067	MIC SWITCH	1	
20	VSJ0114	SOLENOID	1	
21	VXA5401	BRAKE ROD ASS'Y	1	
22	VXA5408	T3 ROD ASS'Y	1	
23	VXA5411	LED HOLDER ASS'Y	1	
24	VXA5412	COVER PLATE ASS'Y	1	
25	VXL2454	P IDLER ARM ASS'Y	1	
26	VXL2455	FR IDLER ARM ASS'Y	1	
27	VXL2456	TENSION ARM ASS'Y	1	
28	VXL2732	PAD ARM ASS'Y	1	
28-1	VMB2788	TENSION SPRING	1	
28-2	VMB2787	PAD ARM SPRING	1	
29	VXL2462	T3 ARM ASS'Y	1	
30	VXL2464	PINCH ARM ASS'Y	1	
31	VXL2466	EJECT ARM ASS'Y	1	
32	VXR0355	SUPPLY REEL TABLE	1	
33	VXR0356	TAKE UP REEL TABLE	1	
34	VXZ0319	TAKE UP MAIN BRAKE	1	
34-1	VMB2782	T MAIN BRAKE SPRING	1	
35	VXZ0321	SUPPLY MAIN BRAKE	1	
35-1	VMB2783	S MAIN BRAKE SPRING	1	
36	VXZ0322	FF BRAKE ASS'Y	1	
36-1	VMB2784	FF BRAKE SPRING	1	
37	VXZ0323	REV BRAKE ASS'Y	1	
37-1	VMB2786	REV SPRING	1	
37-2	VMB2785	REV BRAKE SPRING	1	
101	VHD0882	SCREW	1	
102	XQN14+B15	SCREW	2	
103	VHD0883	SCREW	5	
104	XQN14+B35	SCREW	3	
105	VMX2503	C PULLEY WASHER	1	
106	VMX2400	WASHER	1	
107	VMX2504	WASHER	1	
108	VMX2027	CUT WASHER	1	
109	VMX2028	WASHER	1	
110	VMX2394	WASHER	1	

LCD ASSEMBLY



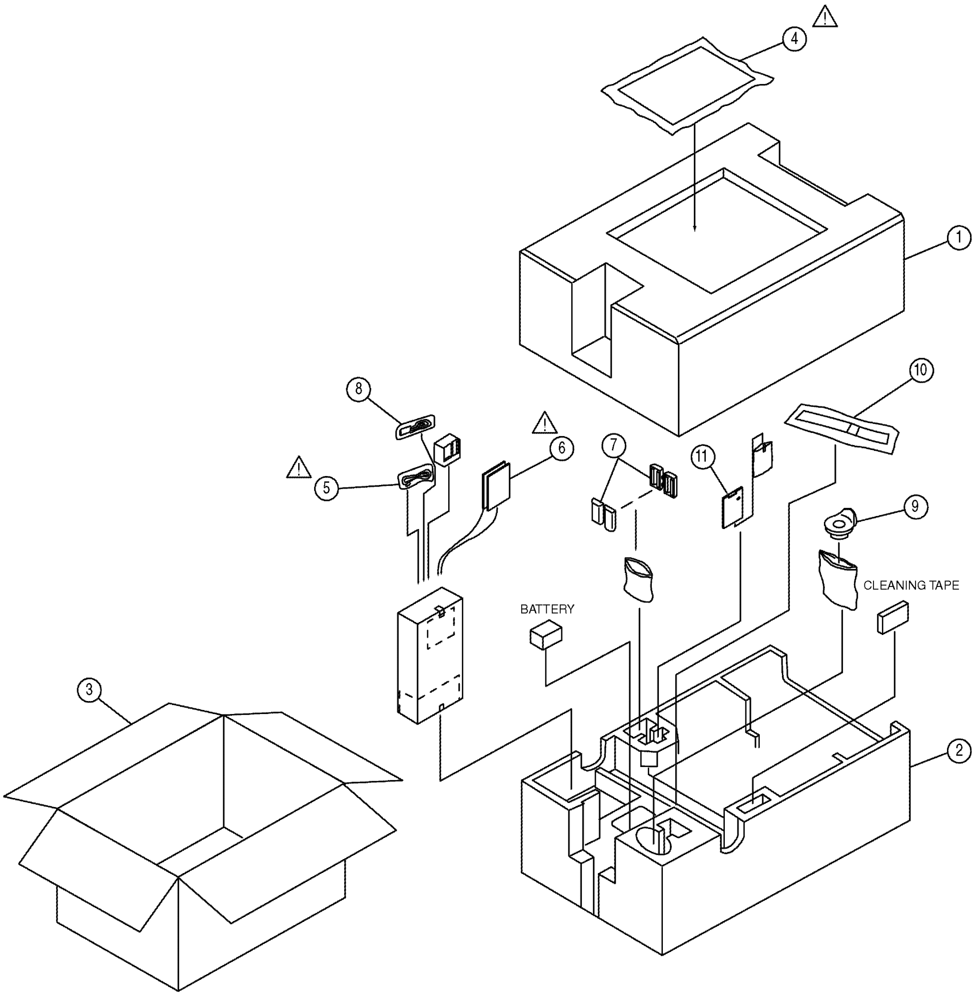
LCD ASSEMBLY

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VGQ5572	LCD LOCK LEVER	1	
2	VKM5323	LCD CASE (LOWER)	1	
3	VMC1576	LCD LOCK SPRING	1	
4	VSC4974	LCD SHIELD CASE	1	
5	EDTCA22QA0	MONITOR LCD PANEL	1	
6	VSC4975	LCD FRAME	1	
7	VGQ4615	DIFFUSION SHEET	1	
8	VEK8888	BACK LIGHT ASS'Y	1	
9	VGQ5573	LCD SHIELD SHEET	1	
10	VGQ3457	PROTECTION BARRIER	1	
11	VYK9933	LCD CASE (UPPER) ASS'Y	1	
12	VMC1614	EARTH SPRING	1	
13	VGQ5633	PROTECT SHEET	2	
14	VGQ5575	HINGE HOLDER	1	
15	VSQ1041	LCD ROTATION MAGNET	2	
16	VMP6171	HINGE MOUNT PLATE	1	
17	VGQ5578	HINGE COVER (LOWER)	1	
18	VGQ5577	HINGE COVER (UPPER)	1	
19	VJB000F1	MONITOR FLEX. (2)	1	FP601-FP904
20	VJB000F0	MONITOR FLEX. (1)	1	FP602-FP903
21	VXD0315	LCD HINGE (1) ASS'Y	1	
22	VMP6172	HINGE REINFORCEMENT PLATE	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
101	XQN2+B3FZ	SCREW	2	
102	XQN2+BJ5	SCREW	2	
103	XQN2+BF25	SCREW	2	
104	XQN2+BJ8FN	SCREW	2	
105	XQN2+B35FN	SCREW	1	
106	XQN2+CJ8	SCREW	2	
107	XQN2+CJ7FZ	SCREW	2	

PACKING PARTS & ACCESSORIES ASSEMBLY

Components identified with the mark ⚠ have the special characteristics for safety.
When replacing any of these components, use only the same type.



PACKING PARTS & ACCESSORIES ASSEMBLY

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VPN5481	CUSHION (UPPER)	1	
2	VPN5482	CUSHION (LOWER)	1	
3	VPG0J91	PACKING	1	
⚠ 4	VQT9246	OPERATING INSTRUCTIONS	1	FOR GER/ENG/FRE/SPA
⚠ 4	VQT9330	OPERATING INSTRUCTIONS		FOR ITALY
⚠ 5	VJA0733	AC CORD	1	K2CT3DA00001 FOR U.K.
⚠ 5	K2CR2DA00005	AC CORD	1	
⚠ 6	VQT9267	OPERATING INSTRUCTIONS	1	AC ADAPTOR
7	VLP0123	DC LINE CORE	1	J0KG00000001
8	VEK8722	DC CABLE ASS'Y	1	
9	VMG1370	EYE CAP	1	
10	VFC3573	SHOULDER STRAP	1	
11	VSQS1510	REMOTE CONTROL	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks

ELECTRICAL REPLACEMENT PARTS LIST

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E1	VEP01801C	POWER C.B.A.	1	(RTL)
■ E2	VEP02561A	DRIVE C.B.A.	1	(RTL)
■ E3	VEP03E52C	VTR MAIN C.B.A.	1	(RTL)
■ E4	VEP23443B	CAMERA MAIN C.B.A.	1	(RTL)
■ E5	VEP20737B	CAMERA OPERATION C.B.A.	1	(RTL)
■ E6	VEP28240D	EVF A C.B.A.	1	(RTL)
■ E7	VEP28244B	EVF B C.B.A.	1	(RTL)
■ E8	VEP05352A	HEAD/REC AMP C.B.A.	1	(RTL)
■ E9	VEP04684A	FRONT C.B.A.	1	(RTL)
■ E10	VEP04778A	JACK C.B.A.	1	(RTL)
■ E11	VEP06C24A	TOP OPERATION C.B.A.	1	(RTL)
■ E12	VEP06C37A	REAR OPERATION C.B.A.	1	(RTL)
■ E13	VEP04693A	MIC C.B.A.	1	(RTL)
■ E14	VEP000T6A	MOTHER C.B.A.	1	(RTL)
■ E15	VEP000R1A	EJECT C.B.A.	1	(RTL)
■ E16	VEP000R3A	REMOTE CONTROL C.B.A.	1	(RTL)
■ E17	VEP000R4A	GRIP ZOOM SW C.B.A.	1	(RTL)
■ E18	VEP000R5A	AWT INT C.B.A.	1	(RTL)
■ E19	VEP000R6A	BATTERY INT C.B.A.	1	(RTL)
■ E20	VEP06E27A	LCD CONTROL C.B.A.	1	(RTL)
■ E21	VEP000U4A	EVF INT C.B.A.	1	(RTL)
■ E22	VEP000S2A	PHOTO SHOT SW C.B.A.	1	(RTL)
■ E23	VEP22278A	CAMERA SUB C.B.A.	1	(RTL)
■ E24	VEP01896A	SUB POWER C.B.A.	1	(RTL)
■ E25	VEP000T7A	ZOOM C.B.A.	1	(RTL)
■ E26	VEP000T8A	EVR EXT C.B.A.	1	(RTL)
■ E27	VEP000T9A	SW C.B.A.	1	(RTL)
■ E28	VEP04777A	MIC AMP C.B.A.	1	(RTL)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E1	VEP01801C	POWER C.B.A.	1	(RTL)
C1001	F1K1A3350001	C.CAPACITOR CH 10V 3.3U	1	
C1002	ECGC1BB150	C.CAPACITOR 12V 15P	1	
C1003,04	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	2	
C1009	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C1011	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1012	F1K1A3350001	C.CAPACITOR CH 10V 3.3U	1	
C1013	ECUX1E331KBQ	C.CAPACITOR CH 25V 330P	1	
C1014	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C1015	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C1016-19	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	4	
C1021	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1022	F1K1A3350001	C.CAPACITOR CH 10V 3.3U	1	
C1023	ECUX1E331KBQ	C.CAPACITOR CH 25V 330P	1	
C1024	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C1025	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C1026-29	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	4	
C1031	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1032	F1K1A3350001	C.CAPACITOR CH 10V 3.3U	1	
C1033	F1G1E392A056	C.CAPACITOR CH 25V 3900P	1	
C1034	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C1035	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C1036	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1041	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1042	F1K1A3350001	C.CAPACITOR CH 10V 3.3U	1	
C1043	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C1045	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C1046,47	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	2	
C1051	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C1052	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	1	
C1053	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	1	
C1055	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C1056	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1058	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C1059	F1K1A3350001	C.CAPACITOR CH 10V 3.3U	1	
C1061	ECUX1E152KBQ	C.CAPACITOR CH 25V 1500P	1	
C1062	ECUX1E332KBQ	C.CAPACITOR CH 25V 3300P	1	
C1063,64	F1K1A225A007	C.CAPACITOR CH 10V 2.2U	2	
C1065,66	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	2	
C1071	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1072	F1K1A3350001	C.CAPACITOR CH 10V 3.3U	1	
C1073	ECUX1E331KBQ	C.CAPACITOR CH 25V 330P	1	
C1074	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C1075	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C1076	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1101	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	1	
C1102	F1J1C334A091	C.CAPACITOR CH 16V 0.33U	1	
C1103	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C1104	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1105	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1106	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1107	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1111	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1112	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	1	
C1113	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	1	
C1114	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C1117	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1118	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C1119	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1121	ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1122	ECUX1C822KBQ	C.CAPACITOR CH 16V 8200P	1	
C1123	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	1	
C1124	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C1128,29	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	2	
C1131	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1132	ECUX1E222KBQ	C.CAPACITOR CH 25V 2200P	1	
C1133	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	1	
C1134	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C1141	ECUM1E223KBN	C.CAPACITOR CH 25V 0.023U	1	
C1142	ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C1143	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	1	
C1144	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C1151	ECUX1H153KBV	C.CAPACITOR CH 50V 0.015U	1	
C1152	ECUX1C822KBQ	C.CAPACITOR CH 16V 8200P	1	
C1153	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	1	
C1154	ECUX1H820JCQ	C.CAPACITOR CH 50V 82P	1	
C1155	ECST1AY225	T.CAPACITOR CH 10V 2.2U	1	
C1156	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C1157	F1J0J335A002	C.CAPACITOR CH6.3V 3.3U	1	
C1171	ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1172	ECUX1C822KBQ	C.CAPACITOR CH 16V 8200P	1	
C1173	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	1	
C1174	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C1251	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
D1051,52	MA729	DIODE	2	
D1061,62	MA728	DIODE	2	
D1101	MAZ81200LL	DIODE	1	
D1102	MA728	DIODE	1	
D1103	1SS355	DIODE	1	
D1151	MAZ81600ML	DIODE	1	
D1152	1SS355	DIODE	1	
FP1001	VJS3320B014	CONNECTOR (FEMALE)	1	
IC1001	C0DBAFA00012	IC	1	
IC1002	TA75S393F	IC	1	
IP1001	K5H312300003	FUSE	1	
L1001	ELC5SB3R9M	COIL 3.9UH	1	
L1011	ELL6TR560	COIL 56UH	1	
L1012	G1A4R7G00001	COIL 4.7UH	1	
L1013	G1C100KA0005	COIL 10UH	1	
L1014	G1C100KA0004	COIL 10UH	1	
L1015-17	G1C100KA0005	COIL 10UH	3	
L1021	ELL6TR150	COIL 15UH	1	
L1022	G1A4R7G00001	COIL 4.7UH	1	
L1023	G1C4R7MA0002	COIL 4.7UH	1	
L1024	G1C100KA0005	COIL 10UH	1	
L1025	G1C100KA0004	COIL 10UH	1	
L1026	G1C100KA0005	COIL 10UH	1	
L1029	G1C100KA0005	COIL 10UH	1	
L1031	ELL6TR151	COIL 150UH	1	
L1032	G1A4R7G00001	COIL 4.7UH	1	
L1041	ELL6TR101	COIL 100UH	1	
L1042	G1A4R7G00001	COIL 4.7UH	1	
L1043	G1C100KA0004	COIL 10UH	1	
L1051,52	G1C331KA0005	COIL 330UH	2	
L1054	G1C100KA0005	COIL 10UH	1	
L1061	ELL6TRD003	COIL 3UH	1	
L1062	ELL6TRD004	COIL 4UH	1	
L1071	ELL6TR330	COIL 33UH	1	
L1072	G1A4R7G00001	COIL 4.7UH	1	
PP1001	K1KA80B00025	CONNECTOR (MALE)	1	
Q1011	B1ZBZ0000018	TRANSISTOR	1	
Q1021	B1ZBZ0000018	TRANSISTOR	1	
Q1022	B1DFBC000005	TRANSISTOR	1	
Q1031	B1ZBZ0000018	TRANSISTOR	1	
Q1041	B1ZBZ0000018	TRANSISTOR	1	
Q1042	B1DFBC000005	TRANSISTOR	1	
Q1051	B1BDDE000001	TRANSISTOR	1	
Q1052	2SB0970X0L	TRANSISTOR	1	
Q1053	2SD2216J0L	TRANSISTOR	1	
Q1054	XP1401	TRANSISTOR-RESISTOR	1	
Q1055	2SD2216J0L	TRANSISTOR	1	
Q1056	2SB1462JHL	TRANSISTOR	1	
Q1061,62	B1ZBZ0000018	TRANSISTOR	2	
Q1071	B1ZBZ0000018	TRANSISTOR	1	
Q1101	2SB1462JHL	TRANSISTOR	1	
QR1001	UNR2130X0L	TRANSISTOR	1	
QR1002	UNR921FJ0L	TRANSISTOR	1	
QR1003	UNR9213J0L	TRANSISTOR	1	
QR1004	UNR9115J0L	TRANSISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
QR1055	UNR9213J0L	TRANSISTOR	1	
QR1101	UNR9214J0L	TRANSISTOR	1	
R1001	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R1003,04	ERJ2GEJ225	M.RESISTOR CH 1/16W 2.2M	2	
R1005	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R1007	ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	1	
R1008	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R1009	ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	1	
R1010	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1011	ERJ6RBB682	M.RESISTOR CH 1/10W 6.8K	1	
R1012	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1013	ERJ3RBD151	M.RESISTOR CH 1/16W 150	1	
R1014	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1015	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R1020	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1021	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1022	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1023	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R1024	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1025	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R1030	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1031	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1032	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1033	ERJ3RED220	M.RESISTOR CH 1/16W 22	1	
R1034	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1035	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R1040	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1041	ERJ6RBB152	M.RESISTOR CH 1/10W 1.5K	1	
R1042	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1043	ERJ3RBD301	M.RESISTOR CH 1/16W 300	1	
R1044	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1050	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1051	ERJ6RBB273	M.RESISTOR CH 1/10W 27K	1	
R1052	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1053	ERJ3RBD151	M.RESISTOR CH 1/16W 150	1	
R1054	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1056	ERJ2GEJ470	M.RESISTOR CH 1/16W 47	1	
R1057	ERJ2RHD133	M.RESISTOR CH 1/16W 13K	1	
R1058	ERJ2RHD361	M.RESISTOR CH 1/16W 360	1	
R1059	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	1	
R1061,62	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	2	
R1070	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1071	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1072	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1073	ERJ3RBD221	M.RESISTOR CH 1/16W 220	1	
R1074	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1075	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R1081	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R1101	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R1102	ERJ6GEYF472	M.RESISTOR CH 1/10W 4.7K	1	
R1103	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R1104	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	1	
R1105	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R1106	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R1107	ERJ2GEJ225	M.RESISTOR CH 1/16W 2.2M	1	
R1108	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R1109	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R1111	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R1112	ERJ2GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R1121	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R1122	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R1131	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R1132	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R1136	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R1141	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R1142	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R1150	ERJ8GEYJ680	M.RESISTOR CH 1/8W 68	1	
R1151	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R1152	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R1153	ERJ2RHD123	M.RESISTOR CH 1/16W 12K	1	
R1154	ERJ2RHD473	M.RESISTOR CH 1/16W 47K	1	
R1155	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R1156	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R1157	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R1158,59	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R1171	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R1172	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R1253-55	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	3	
R1256	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
T1001	G5DYA0000016	TRANSFORMER	1	
■ E2	VEP02561A	DRIVE C.B.A.	1	(RTL)
C2201	F1H1E273A050	C.CAPACITOR CH 25V 0.027U	1	
C2202	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C2203	ECUX1H270JCQ	C.CAPACITOR CH 50V 27U	1	
C2204	ECUX1A564KBN	C.CAPACITOR CH 10V 0.56U	1	
C2205	ECUX1E332KBQ	C.CAPACITOR CH 25V 3300P	1	
C2207	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C2208	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2209	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C2210	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C2211	ECST0JY475Z	T.CAPACITOR CH6.3V 4.7U	1	
C2212-14	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	3	
C2215	F1J0J335A002	C.CAPACITOR CH6.3V 3.3U	1	
C2217-19	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	3	
C2223	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2225	F1J0J335A002	C.CAPACITOR CH6.3V 3.3U	1	
C2226,27	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	2	
C2230	F1J0J335A002	C.CAPACITOR CH6.3V 3.3U	1	
C2231	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C2232	F1J0J335A002	C.CAPACITOR CH6.3V 3.3U	1	
C2233	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C2234	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	1	
C2235-37	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	3	
C2238,39	F1J0J335A002	C.CAPACITOR CH6.3V 3.3U	2	
C2240	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	1	
C2245	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C2246	ECUX1A564KBN	C.CAPACITOR CH 10V 0.56U	1	
C2247-49	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	3	
C2250	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C2251	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2255-57	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	3	
FP2002	K1MN22B00030	CONNECTOR	1	
FP2003	K1MN09B00027	CONNECTOR	1	
FP2004	K1MN30B00037	CONNECTOR	1	
IC2201	TB6519AF	IC	1	
IC2202,03	UN224	TRANSISTOR-RESISTOR	2	
IC2204	TA75S393F	IC	1	
IC2205	TC75W54FU	IC	1	
IC2206	TC7S86FU	IC	1	
IC2207	BA6289F	IC	1	
PS2001	K1KB50A00084	CONNECTOR (FEMALE)	1	
Q2201	2SB1462JHL	TRANSISTOR	1	
Q2202	2SD2216J0L	TRANSISTOR	1	
R2201	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R2202	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	1	
R2204	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
R2205	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2207	ERJ2GEJ561	M.RESISTOR CH 1/16W 560	1	
R2208	ERJ8GEYJR33	M.RESISTOR CH 1/8W 0.33	1	
R2209	ERJ8GEYJR47	M.RESISTOR CH 1/8W 0.47	1	
R2210,11	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	2	
R2212	ERJ8RQJR27	M.RESISTOR CH 1/8W 0.27	1	
R2213	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	1	
R2214	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2215,16	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R2220	ERJ2RHD104	M.RESISTOR CH 1/16W 100K	1	
R2221	ERJ2RHD431	M.RESISTOR CH 1/16W 430	1	
R2222,23	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	2	
R2224	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	1	
R2225	ERJ2GEJ394	M.RESISTOR CH 1/16W 390K	1	
R2226	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2227	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2228	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R2229	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2231	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R2232	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	1	
R2233	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R2234	ERJ2GEJ394	M.RESISTOR CH 1/16W 390K	1	
R2235	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R2236	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R2237	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2238	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	1	
RA2201	EXBV8V331J	COMBI.R-R 330	1	
RA2203	EXBV4V102J	COMBI.R-R 1K	1	
		MISCELLANEOUS		
	VMZ2689	INSULATION SHEET	1	
■ E3	VEP03E52C	VTR MAIN C.B.A.	1	(RTL)
C601	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C602	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C603-10	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	8	
C611-13	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	3	
C614	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C615	ECUX1H181JCQ	C.CAPACITOR CH 50V 180P	1	
C616	ECUX1H680JCQ	C.CAPACITOR CH 50V 68P	1	
C617-19	ECUX1H560JCQ	C.CAPACITOR CH 50V 56P	3	
C620-26	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	7	
C630-32	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	3	
C633	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C634	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C635-42	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	8	
C643-45	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	3	
C646	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C647	ECUX1H181JCQ	C.CAPACITOR CH 50V 180P	1	
C648	ECUX1H680JCQ	C.CAPACITOR CH 50V 68P	1	
C649-51	ECUX1H560JCQ	C.CAPACITOR CH 50V 56P	3	
C652-58	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	7	
C662-65	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	4	
C666	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C667	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C668	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C669	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C671,72	VCS0JJ106	T.CAPACITOR CH6.3V 10U	2	
C2001,02	F1G1H100A448	C.CAPACITOR CH 50V 10P	2	
C2003-05	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C2006	ECUX1H120JCQ	C.CAPACITOR CH 50V 12P	1	
C2007	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2008	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2009	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C2010	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2011	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C2012	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C2013	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C2014	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2015	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C2016	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2017	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C2018	ECST0JY475Z	T.CAPACITOR CH6.3V 4.7U	1	
C2019	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2020	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2021	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2023-25	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C2026	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C2027	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C2028	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2029	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C2030	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2031,32	ECUX1H221JCQ	C.CAPACITOR CH 50V 220P	2	
C2033	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2034	ECST1CY225	T.CAPACITOR CH 16V 2.2U	1	
C2035,36	F1G1H100A448	C.CAPACITOR CH 50V 10P	2	
C2037	ECUX1H330JCQ	C.CAPACITOR CH 50V 33P	1	
C2038	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	1	
C2040	ECUX1H120JCQ	C.CAPACITOR CH 50V 12P	1	
C2041	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2042	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C2199	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C3002	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3003	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	1	
C3004	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3005-09	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	5	
C3010-13	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	4	
C3015	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3016	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C3017	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3018	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3019	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C3020	F1G1H100A448	C.CAPACITOR CH 50V 10P	1	
C3021	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C3022	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3023	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C3026	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3027	ECUX1H050CCQ	C.CAPACITOR CH 50V 5P	1	
C3028	ECUX1E561KBQ	C.CAPACITOR CH 25V 560P	1	
C3030	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3035	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3036	F1G1H100A448	C.CAPACITOR CH 50V 10P	1	
C3037	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C3038,39	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	2	
C3040,41	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	2	
C3042	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3043-48	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	6	
C3050,51	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C3053,54	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C3055-58	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	4	
C3060	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	1	
C3061	ECUX1H120JCQ	C.CAPACITOR CH 50V 12P	1	
C3065	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C3066	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3067	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	1	
C3071,72	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C3073-77	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	5	
C3078,79	ECUX1H050CCQ	C.CAPACITOR CH 50V 5P	2	
C3080	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C3081	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3083,84	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	2	
C3086	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C3088	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3089	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3090	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3091	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	1	
C3092	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3094	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C3096	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C3201,02	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	2	
C3203,04	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C3205	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3206,07	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	2	
C3208	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C3209-11	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C3212,13	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C3214	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C3215	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3216-18	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C3219	F1H1E273A050	C.CAPACITOR CH 25V 0.027U	1	
C3220-22	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C3223	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C3224	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3225-27	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C3228	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C3229	ECUX1E331KBQ	C.CAPACITOR CH 25V 330P	1	
C3230	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3231	ECUX1E152KBQ	C.CAPACITOR CH 25V 1500P	1	
C3232-34	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C3235	ECUX1E681KBQ	C.CAPACITOR CH 25V 680P	1	
C3236-38	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C3239	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3240	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3241,42	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C3243-45	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C3246	F1J0J225A002	C.CAPACITOR CH6.3V 2.2U	1	
C3247-52	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	6	
C3253	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3254,55	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C3256	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3257	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3258	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C3259	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C3261	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C3262	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3264	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3265	ECUX1H220JCQ	C.CAPACITOR CH 50V 22P	1	
C3802-04	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	3	
C3806	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3807	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3808	ECUX1E271KBQ	C.CAPACITOR CH 25V 270P	1	
C3809	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3813	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C3814	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3816	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3817,18	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C3820	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C3822	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C3824-26	EEJK0JS106	E.CAPACITOR 6.3V 10M	3	
C3827	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3901	ECST0JC107Z	T.CAPACITOR CH6.3V 100U	1	
C3902	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C4001	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4002	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C4003,04	VCS0JJ106	T.CAPACITOR CH6.3V 10U	2	
C4005,06	ECUX1E152KBQ	C.CAPACITOR CH 25V 1500P	2	
C4007	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	1	
C4011	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4012	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C4013,14	ECUX1H121JCQ	C.CAPACITOR CH 50V 120P	2	
C4015,16	VCS0JJ106	T.CAPACITOR CH6.3V 10U	2	
C4201,02	F1G1C333A004	C.CAPACITOR CH 16V 0.033U	2	
C4203	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C4204	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C4205	ECUX1E222KBQ	C.CAPACITOR CH 25V 2200P	1	
C4206	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C4207	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C4208	ECUX1E122KBQ	C.CAPACITOR CH 25V 1200P	1	
C4209,10	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	2	
C4211	ECUX1E122KBQ	C.CAPACITOR CH 25V 1200P	1	
C4212,13	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	2	
C4214,15	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C4218	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C4219	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4501	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4502	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C4503-05	VCS0JJ106	T.CAPACITOR CH6.3V 10U	3	
C4506	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4507	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C4508	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C4509,10	VCS0JJ106	T.CAPACITOR CH6.3V 10U	2	
C4511	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C4512	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C4513,14	VCS0JJ106	T.CAPACITOR CH6.3V 10U	2	
C4515	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C4701	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C4702	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C4704	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4705	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	L606,07
C4706	ECUX1H153KBV	C.CAPACITOR CH 50V 0.015U	1	
C4798,99	ECUX1H153KBV	C.CAPACITOR CH 50V 0.015U	2	
C6501	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C6502,03	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	2	
C6504	EEVHB1C101P	E.CAPACITOR 16V 100U	1	
C6507	ECUX1C822KBQ	C.CAPACITOR CH 16V 8200P	1	
D2001-04	MA728	DIODE	4	
D2005	1SS355	DIODE	1	
D2006	MA3S13300L	DIODE	1	
D2007	1SS355	DIODE	1	
D2010	MA728	DIODE	1	
D2011	MA132WK	DIODE	1	
D2012	MA3S132D0L	DIODE	1	
D2013	MA728	DIODE	1	
D2015-18	MA728	DIODE	4	
D2020-22	MA728	DIODE	3	
D2023	1SS355	DIODE	1	
D2024,25	MA728	DIODE	2	
D3201	MA3S132D0L	DIODE	1	
D3202	MA728	DIODE	1	
D4001	MA3S13300L	DIODE	1	
D4002	MA728	DIODE	1	
D6501-04	MA3S132D0L	DIODE	4	
D6505	MA3S132A0L	DIODE	1	
D6506	MA3S132D0L	DIODE	1	
FP3201	VJS3320B024	CONNECTOR (FEMALE)	1	
FP4001	VJS3319B013	CONNECTOR (FEMALE)	1	
FP6001	VJS3319B014	CONNECTOR (FEMALE)	1	
FP6002	VJS3319B016	CONNECTOR (FEMALE)	1	
IC602	C1AB00001019	IC	1	
IC603	NJM78L12UA	IC	1	
IC604	C0JBAS000081	IC	1	
IC605	C0DBEZG00005	IC	1	
IC606	C0CBAAC00027	IC	1	
IC2001	C2DBJG000053	IC	1	
IC2002	S3511AEFS	IC	1	
IC2003	UPD6462GS626	IC	1	C1AB00000580
IC2004	S81333HGKF	IC	1	
IC2005	C3EBEG000001	IC	1	
IC2006	M62370GP	IC	1	C0FBBD000082
IC2007	C0BBBZ000003	IC	1	
IC2008	TA75S393F	IC	1	
IC2009	S81238SGQ8	IC	1	
IC2010	C0EBE0000057	IC	1	
IC2011	D784037GK510	IC	1	
IC2012	TC4W53FU	IC	1	
IC2013	MM1320ENRE	IC	1	C0CBABB00030
IC2014,15	TC4W53FU	IC	2	
IC3001	T9P90EF	IC	1	
IC3002	MN47V07AF	IC	1	
IC3003	MN67373	IC	1	
IC3004	BA7653AF	IC	1	
IC3005	BH7086KV	IC	1	C1ZBZ0001649
IC3006	NJM2538VT	IC	1	
IC3201	M65500FP	IC	1	C1AB00000834
IC3202	MNV4260DTA7	IC	1	
IC3203	AN3741FAP-AV	IC	1	
IC3204	C0FBAD000052	IC	1	
IC3205	TC7SH08FU	IC	1	
IC3801	C1DB00000453	IC	1	
IC4001	NJM3414AVT	IC	1	
IC4201	BA7785FS	IC	1	
IC4501	AK4513-VQ	IC	1	C0FBZH000004
IC4701	C1CB00000889	IC	1	
IC6501-03	TC7W241FU	IC	3	
IC6505,06	TC7SH08FU	IC	2	
JK3801	VJJ0568	DV JACK	1	
L601-03	VLQ0807K100	COIL 10UH	3	G1C100K00024

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
L605	VLQ0807K100	COIL 10UH	1	G1C100K00024
VLQ0807K220	COIL	22UH 2 G1C220K00016		
L2001	VLQ0807K100	COIL 10UH	1	G1C100K00024
L2002	VLQ0426J330	COIL 33UH	1	G1C330J00005
L2003	VLQ0807K100	COIL 10UH	1	G1C100K00024
L3002	VLQ0426J5R6	COIL 5.6UH	1	G1C5R6J00005
L3003,04	VLQ0807K100	COIL 10UH	2	G1C100K00024
L3005	VLQ0807K220	COIL 22UH	1	G1C220K00016
L3006	VLQ0807K100	COIL 10UH	1	G1C100K00024
L3008	VLQ0807K100	COIL 10UH	1	G1C100K00024
L3009	VLQ0426J100	COIL 10UH	1	G1C100J00008
L3010,11	VLQ0807K100	COIL 10UH	2	G1C100K00024
L3201	VLQ0807K100	COIL 10UH	1	G1C100K00024
L3202	VLQ0807M4R7	COIL 4.7UH	1	G1C4R7K00016
L3203-07	VLQ0807K100	COIL 10UH	5	G1C100K00024
L3208	VLQ0807K220	COIL 22UH	1	G1C220K00016
L3209	VLQ0807M4R7	COIL 4.7UH	1	G1C4R7K00016
L3801-03	VLQ0807K100	COIL 10UH	3	G1C100K00024
L3901	VLQ0807K220	COIL 22UH	1	G1C220K00016
L4001	VLQ0807K100	COIL 10UH	1	G1C100K00024
L4201	VLQ0807K100	COIL 10UH	1	G1C100K00024
L4202	G1C100K00025	COIL 10UH	1	
L4502	VLQ0807K100	COIL 10UH	1	G1C100K00024
L6501	VLQ0807K100	COIL 10UH	1	G1C100K00024
L6502	VLQ0807K220	COIL 22UH	1	G1C220K00016
LB3001-03	VLP0145	COIL	3	
LB3004	VLP0155	COIL	1	
LB3005,06	VLP0329A601	COIL 600UH	2	
LB3007	J0JBC0000043	FILTER	1	
P3001	VJP3172D002	CONNECTOR (MALE)	1	K1KA02B00051
PP2001	VJP3989A050	CONNECTOR (MALE)	1	
PP3001	VJP3884B060	CONNECTOR (MALE)	1	
PP3002	VJS3949A070M	CONNECTOR (FEMALE)	1	
PS1001	VJS3846A080	CONNECTOR (FEMALE)	1	
PS3001	VJS3846A030	CONNECTOR (FEMALE)	1	
PS3002	VJS3846A080	CONNECTOR (FEMALE)	1	
Q601-06	2SB0970X0L	TRANSISTOR	6	
Q608	2SB0970X0L	TRANSISTOR	1	
Q609-11	2SD2216J0L	TRANSISTOR	3	
Q2001	2SB0970X0L	TRANSISTOR	1	
Q2002	2SB1218A	TRANSISTOR	1	
Q2003	2SD182000L	TRANSISTOR	1	
Q2006	2SD2216J0L	TRANSISTOR	1	
Q2008	XP0650100L	TRANSISTOR	1	
Q3001,02	2SD2216J0L	TRANSISTOR	2	
Q3201	2SD2216J0L	TRANSISTOR	1	
Q3202	2SB1462JHL	TRANSISTOR	1	
Q3203	2SC4627J0L	TRANSISTOR	1	
Q3204	2SD2216J0L	TRANSISTOR	1	
Q4001	XN4504	TRANSISTOR-RESISTOR	1	
Q4701	2SD1979	TRANSISTOR	1	
Q4702	XP0440100L	TRANSISTOR	1	
QR601	UNR9212J0L	TRANSISTOR	1	
QR602	UNR9213J0L	TRANSISTOR	1	
QR604-06	UNR9212J0L	TRANSISTOR	3	
QR607	XP0431400L	TRANSISTOR	1	
QR2001	UNR9115J0L	TRANSISTOR	1	
QR2002,03	XP0421300L	TRANSISTOR	2	
QR2004	UNR9115J0L	TRANSISTOR	1	
QR2005	UNR2130X0L	TRANSISTOR	1	
QR2006	UNR9115J0L	TRANSISTOR	1	
QR2007	UNR9213J0L	TRANSISTOR	1	
QR2008	XP0121300L	TRANSISTOR	1	
QR2009,10	UNR9115J0L	TRANSISTOR	2	
QR2011	UNR9213J0L	TRANSISTOR	1	
QR2012,13	UNR9212J0L	TRANSISTOR	2	
QR3001	UNR9212J0L	TRANSISTOR	1	
QR4001	UNR9212J0L	TRANSISTOR	1	
QR4002,03	UNR9112J0L	TRANSISTOR	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
QR4201	UNR9212J0L	TRANSISTOR	1	
QR4703	XP4312	TRANSISTOR-RESISTOR	1	
R507-12	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	6	
R513	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R521	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R522	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R523	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R524	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R525	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R526	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R527-32	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	6	
R600,01	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R602,03	ERJ2RHD102	M.RESISTOR CH 1/16W 1K	2	
R604	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	1	
R605	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R606	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R607	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R608	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R609,10	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	2	
R611	ERJ2GEJ393	M.RESISTOR CH 1/16W 39K	1	
R612	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R613	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R614,15	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R616	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R617	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R619	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R621	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R622	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R623	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R624	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R625	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R626	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R629	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R631	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R634	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R637	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R638	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R639	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R640	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R642	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R644	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R647	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R648-50	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	3	
R651,52	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	2	
R653	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R656-58	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	3	
R659	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R661	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R663	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R664	ERJ2RHD821	M.RESISTOR CH 1/16W 820	1	
R665	ERJ2RHD223	M.RESISTOR CH 1/16W 22K	1	
R666	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R667	ERJ2RHD472	M.RESISTOR CH 1/16W 4.7K	1	
R673	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R674	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R675	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R680	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R681	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R682	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R683	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R685	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R690	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R691-93	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	3	
R694,95	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	2	
R696	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R697-99	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	3	
R2002	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R2003	ERJ2GEJ220	M.RESISTOR CH 1/16W 22	1	
R2004,05	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R2006,07	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R2008	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R2009	ERJ2GEJ394	M.RESISTOR CH 1/16W 390K	1	
R2011	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R2012	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R2013	ERJ2GEJ684	M.RESISTOR CH 1/16W 680K	1	
R2014	ERJ2GEJ474	M.RESISTOR CH 1/16W 470K	1	
R2015	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2016	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R2017,18	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R2019,20	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	2	
R2021	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2022	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R2023	ERJ2GEJ393	M.RESISTOR CH 1/16W 39K	1	
R2024	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R2025	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R2026	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R2027	ERJ8GEYG330	M.RESISTOR CH 1/8W 33	1	
R2028	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R2029	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2031	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2033	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R2034	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	1	
R2035	ERJ2RHD183	M.RESISTOR CH 1/16W 18K	1	
R2036	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R2037	ERJ2RHD223	M.RESISTOR CH 1/16W 22K	1	
R2038	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R2039	ERJ2RHD333	M.RESISTOR CH 1/16W 33K	1	
R2040	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R2041	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2042	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R2043	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2044	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2045	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R2046	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2047	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2048	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2049,50	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R2052	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2053	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R2054	ERJ2GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R2055,56	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R2057	ERJ2GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R2058	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2059	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2060	ERJ2RHD273	M.RESISTOR CH 1/16W 27K	1	
R2061	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R2062,63	ERJ2RHD473	M.RESISTOR CH 1/16W 47K	2	
R2064	ERJ2RHD273	M.RESISTOR CH 1/16W 27K	1	
R2065	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R2066	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2067,68	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	2	
R2069	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R2070	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R2072	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2073,74	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R2076,77	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	2	
R2078,79	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R2080	ERJ2RHD563	M.RESISTOR CH 1/16W 56K	1	
R2081	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	1	
R2082	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2083	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2085	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	1	
R2087	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2088	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2089	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	1	
R2090,91	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R2092	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R2093	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2095	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2096	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2097	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2098-04	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	7	
R2106	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2107	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2108	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R2109	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2110	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R2113	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R2114,15	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R2116	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R2117	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R2118	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R2119	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	1	
R2121	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R2122	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R2123	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2124,25	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	2	
R2126	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R2127	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2128	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2129	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2130	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2133	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2134	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R2135	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R2136-38	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	3	
R2139	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R2140	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2141,42	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R2143	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2199	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R3001,02	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R3003,04	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R3005	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3006	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R3009	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3010	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3011,12	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	2	
R3013	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3014	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3016	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R3017-19	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	3	
R3020	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3022	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	1	
R3023	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3024	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R3027	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R3028	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R3030	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	1	
R3031	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R3032	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	1	
R3033	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R3034	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3035	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3036	ERJ2GEJ225	M.RESISTOR CH 1/16W 2.2M	1	
R3037	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3038,39	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	2	
R3041	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R3042	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R3044	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	1	
R3046	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3048,49	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	2	
R3050,51	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	2	
R3052	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R3053	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3054	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R3055,56	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R3057	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
R3058	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3059	ERJ2GEJ680	M.RESISTOR CH 1/16W 68	1	
R3060	ERJ2GEJ271	M.RESISTOR CH 1/16W 270	1	
R3061	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3062	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3075	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3076	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R3078	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R3079	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R3083	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	1	
R3085	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	1	
R3086	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3090,91	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	2	
R3094	ERJ2GEJ391	M.RESISTOR CH 1/16W 390	1	
R3099	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3203	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3204	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3205	ERJ2RHD222	M.RESISTOR CH 1/16W 2.2M	1	
R3206,07	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	2	
R3208	ERJ2GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R3209	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3210	ERJ2GEJ561	M.RESISTOR CH 1/16W 560	1	
R3211	ERJ2GEJ680	M.RESISTOR CH 1/16W 68	1	
R3212	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3213	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3214	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3215	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3217	ERJ2RHD181	M.RESISTOR CH 1/16W 180	1	
R3218	ERJ2RHD301	M.RESISTOR CH 1/16W 300	1	
R3219	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3220	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	1	
R3221	ERJ2RHD222	M.RESISTOR CH 1/16W 2.2M	1	
R3222	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3223	ERJ2GEJ124	M.RESISTOR CH 1/16W 120K	1	
R3224	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3225	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R3226	ERJ2GEJ391	M.RESISTOR CH 1/16W 390	1	
R3227,28	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	2	
R3229	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3230	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	1	
R3231	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3232	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3233	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R3234	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3235-37	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	3	
R3238	ERJ2GEJ564	M.RESISTOR CH 1/16W 560K	1	
R3239	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R3240	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3241	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3242	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R3243-45	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	3	
R3247	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3248	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3249	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R3251	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R3252	ERJ2RHD391	M.RESISTOR CH 1/16W 390	1	
R3254	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3255	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	1	
R3801	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3803	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3804	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3805	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3806	ERJ2GEJ394	M.RESISTOR CH 1/16W 390K	1	
R3807	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	1	
R3809	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3811-14	ERJ2RKD560	M.RESISTOR CH 1/16W 56	4	
R3815	ERJ2RHD332	M.RESISTOR CH 1/16W 3.3K	1	
R3816	ERJ2GEJ391	M.RESISTOR CH 1/16W 390	1	
R3834	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3841,42	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R3844	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R3845	ERJ2GEJ270	M.RESISTOR CH 1/16W 27	1	
R4001,02	ERJ2RHD273	M.RESISTOR CH 1/16W 27K	2	
R4003,04	ERJ2RHD822	M.RESISTOR CH 1/16W 8.2K	2	
R4011,12	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	2	
R4013,14	ERJ2RHD223	M.RESISTOR CH 1/16W 22K	2	
R4015,16	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	2	
R4017,18	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	2	
R4021	ERJ2GEJ124	M.RESISTOR CH 1/16W 120K	1	
R4022	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R4201,02	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	2	
R4203,04	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R4205	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R4211	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R4501	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	1	
R4502,03	ERJ2RHD471	M.RESISTOR CH 1/16W 470	2	
R4504	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4506,07	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R4701	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R4702	ERJ2RHD223	M.RESISTOR CH 1/16W 22K	1	
R4704	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R4705	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R4707	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4708	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R4709	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4710	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R4711,12	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	2	
R4798	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R4799	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R6503	ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	1	
R6504	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R6505,06	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	2	
R6510	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R6515	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
RA2001	EXB28V102J	COMBI.R-R 1K	1	
RA2002	EXB24V102J	COMBI.R-R 1K	1	
RA2003	EXB28V473J	COMBI.R-R 47K	1	
RA2005-08	EXB28V103J	COMBI.R-R 10K	4	
RA2011	EXB24V102J	COMBI.R-R 1K	1	
RA2012	EXB28V473J	COMBI.R-R 47K	1	
RA2013	EXB24V331J	COMBI.R-R 330	1	
RA2014	EXB24V271J	COMBI.R-R 270	1	
RA2016	EXB24V102J	COMBI.R-R 1K	1	
RA2018	EXB24V332J	COMBI.R-R 3.3K	1	
RA2023	EXB28V102J	COMBI.R-R 1K	1	
RA2024	EXB24V472J	COMBI.R-R 4.7K	1	
RA3803-05	EXB24V103J	COMBI.R-R 10K	3	
RA3806,07	EXB28V103J	COMBI.R-R 10K	2	
RA3808,09	EXB24V103J	COMBI.R-R 10K	2	
RA4001	EXB24V562J	COMBI.R-R 5.6K	1	
W602	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
W604,05	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
W2001,02	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
W2004	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
W6501	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
X2001	VSX0847	CRYSTAL OSCILLATOR	1	H0J270500019
X2002	VSX0885	CRYSTAL OSCILLATOR	1	H0J327200001
X2003	H2D147500001	CRYSTAL OSCILLATOR	1	
X3001	H0J270500010	CRYSTAL OSCILLATOR	1	
X3003	H0J245500014	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VWJ13E5045L0	FLEXIBLE CABLE	1	
	VWJ16E5050L0	FLEXIBLE CABLE	1	
	VMZ2759	VTR BARRIER	1	
	VMT1187	C.B.A. BACK UP CUSHION	1	
■ E4	VEP23443B	CAMERA MAIN C.B.A.	1	(RTL)
C301,02	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C303	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C304	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C305	ECUX1C153KBQ	C.CAPACITOR CH 16V 0.015U	1	
C306	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C307	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	1	
C308	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C309	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C310	ECUX1C153KBQ	C.CAPACITOR CH 16V 0.015U	1	
C311,12	ECUX1H180JCQ	C.CAPACITOR CH 50V 18P	2	
C313	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C314	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C315	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C316	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C317	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C318-20	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	3	
C321	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C322	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C323	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C324-31	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	8	
C332	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C333	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C334	ECUX1C153KBQ	C.CAPACITOR CH 16V 0.015U	1	
C335	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C336	ECUX1E561KBQ	C.CAPACITOR CH 25V 560P	1	
C337	ECUX1E681KBQ	C.CAPACITOR CH 25V 680P	1	
C347	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C701	ECUX1E332KBQ	C.CAPACITOR CH 25V 3300P	1	
C702,03	ECST0JY156	T.CAPACITOR CH6.3V 15U	2	
C704	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C705	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C706	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C707	ECUX1C153KBQ	C.CAPACITOR CH 16V 0.015U	1	
C708	F1G1E392A056	C.CAPACITOR CH 25V 3900P	1	
C709	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C711	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C712	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C713	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C714	ECUX1C822KBQ	C.CAPACITOR CH 16V 8200P	1	
C715	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C716	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C717	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C718	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C719	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C720	ECUX1C153KBQ	C.CAPACITOR CH 16V 0.015U	1	
C721	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C722	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C724	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C725,26	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C727	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	1	
C728	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
D301-03	MA728	DIODE	3	
D304,05	1SS355	DIODE	2	
FP301	K1MN51B00001	CONNECTOR	1	
FP305	VJS3320B012	CONNECTOR (FEMALE)	1	
FP701	K1MN22B00029	CONNECTOR	1	
IC301	MN673432	IC	1	
IC302	MN673442	IC	1	
IC303,04	MN4795F	IC	2	
IC305	MN1021617EB	IC	1	
IC308	TVHC08FT	IC	1	
IC311,12	TC7SH14FU	IC	2	
IC701	T9P45AF	IC	1	
IC702	TA8487F	IC	1	
IC703	TB6526F	IC	1	
IC704	C0ABBB000106	IC	1	
IC705	TA75W01FU	IC	1	
IC706	C0ABBB000081	IC	1	
L303-05	VLQ0807K100	COIL 10UH	3	G1C100K00024
L306,07	G1C330KA0004	COIL 330UH	2	
L308	VLQ0807K100	COIL 10UH	1	G1C100K00024
L313,14	VLQ0807K100	COIL 10UH	2	G1C100K00024
L315	G1C6R8MA0002	COIL 6.8UH	1	
L701,02	VLQ0807K100	COIL 10UH	2	G1C100K00024
L703	G1C470KA0005	COIL 47UH	1	
L704-06	VLQ0807K100	COIL 10UH	3	G1C100K00024
LB301-07	J0JBC0000025	FILTER	7	
LB308	VLF1144A102	FILTER	1	
LB309	J0JBC0000025	FILTER	1	
LB310	VLF1144A102	FILTER	1	
LB312	VLF1144A102	FILTER	1	
PP301	K1KA80B00025	CONNECTOR (MALE)	1	
PP302	K1KA30B00055	CONNECTOR (MALE)	1	
Q301	2SD2216J0L	TRANSISTOR	1	
Q701-03	XN0440400L	TRANSISTOR	3	
Q704	2SD0601A0L	TRANSISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q706	XP0450100L	TRANSISTOR	1	
Q707	2SB1073	TRANSISTOR	1	
QR302	UNR9211J0L	TRANSISTOR	1	
QR303	XP1211	TRANSISTOR-RESISTOR	1	
R301	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R302	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R303	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R304	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R307	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	1	
R308,09	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R310	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R311	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R312	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R313	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	1	
R314,15	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	2	
R316,17	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	2	
R318	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R319	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R320	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R321	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R322,23	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R324,25	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R326	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R327-29	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	3	
R330	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R331	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R332	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R334,35	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R338	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R339,40	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	2	
R341	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R343	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R346	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R367	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R387,88	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R389,90	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R391	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R413	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R471	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R701,02	ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3	2	
R703	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R704	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R705-07	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	3	
R708,09	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R710	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R711	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R712	ERJ3RED124	M.RESISTOR CH 1/16W 120K	1	
R713,14	ERJ2RHD472	M.RESISTOR CH 1/16W 4.7K	2	
R715	ERJ3RED124	M.RESISTOR CH 1/16W 120K	1	
R716	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R717,18	ERJ6RBB472	M.RESISTOR CH 1/10W 4.7K	2	
R719,20	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	2	
R721	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	1	
R722	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R723	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R724	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R725	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R726	ERJ2GEJ184	M.RESISTOR CH 1/16W 180K	1	
R727	ERJ2GEJ821	M.RESISTOR CH 1/16W 820	1	
R728	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R729	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R730	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R731	ERJ2GEJ274	M.RESISTOR CH 1/16W 270K	1	
R732	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R733	ERJ2GEJ274	M.RESISTOR CH 1/16W 270K	1	
R734	ERJ2GEJ394	M.RESISTOR CH 1/16W 390K	1	
R735,36	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	2	
R737	ERJ2GEJ684	M.RESISTOR CH 1/16W 680K	1	
R738	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R739	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R740	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R741	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
R742	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R743,44	ERJ2RHD153	M.RESISTOR CH 1/16W 15K	2	
R746	ERJ6RQF1R8	M.RESISTOR CH 1/10W 1.8K	1	
R747	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R748	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R750	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R751	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R752	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R753	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R754	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R755	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R756,57	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R758	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R759	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R760	ERJ2GEJ393	M.RESISTOR CH 1/16W 39K	1	
R762,63	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	2	
R764,65	ERJ2RHD122	M.RESISTOR CH 1/16W 1.2K	2	
R766	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	1	
R767	ERJ2RHD122	M.RESISTOR CH 1/16W 1.2K	1	
R768	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R769	ERJ2GEJ474	M.RESISTOR CH 1/16W 470K	1	
R775	ERJ2GEJ184	M.RESISTOR CH 1/16W 180K	1	
R777	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
RA301-05	EXB24V473J	COMBI.R-R 47K	5	
RA307	EXB24V473J	COMBI.R-R 47K	1	
RA310	EXB24V332J	COMBI.R-R 3.3K	1	
RA311,12	EXB24V103J	COMBI.R-R 10K	2	
RA314,15	EXB24V104J	COMBI.R-R 100K	2	
RA316	EXB24V152J	COMBI.R-R 1.5K	1	
RA317	EXB24V681J	RESISTOR-RESISTOR	1	
RA319-21	EXB24V102J	COMBI.R-R 1K	3	
RA323	EXB24V102J	COMBI.R-R 1K	1	
RA324	EXB24V473J	COMBI.R-R 47K	1	
RA325	EXB24V101J	COMBI.R-R 100	1	
RA333-39	EXB24V101J	COMBI.R-R 100	7	
TH701	D4CC16830003	THERMISTOR	1	
TH702	D4CC13340001	THERMISTOR	1	
TH703	D4CC11030004	THERMISTOR	1	
W302	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
W305	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
W310	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
X301	H0J160500027	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VGQ4776	CAMERA BARRIER	1	
■ E5	VEP20737B	CAMERA OPERATION C.B.A.	1	(RTL)
SW6501	K0D113B00026	SWITCH	1	
SW6502-04	EVQQW101M	SWITCH	3	
SW6505	K9AA01500003	SWITCH	1	
■ E6	VEP28240D	EVF A C.B.A.	1	(RTL)
BL881	VLL0203	BACK LIGHT	1	
Q881	B1DFCL000005	TRANSISTOR	1	
R881	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
T881	ETJ09K31AM	TRANSFORMER	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
		MISCELLANEOUS		
	VWJ1174	EVF INT CABLE	1	
■ E7	VEP28244B	EVF B C.B.A.	1	(RTL)
C801	F1L1A335A002	C.CAPACITOR CH 10V 3.3U	1	
C802	ECGC1BB150	C.CAPACITOR 12V 15P	1	
C827	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C829	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C830	ECUV1H470JCV	C.CAPACITOR CH 50V 47P	1	
C832	ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C833	ECST1CY225	T.CAPACITOR CH 16V 2.2U	1	
C834-37	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	4	
C838,39	ECST0JY106Z	T.CAPACITOR CH6.3V 10U	2	
C865,66	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
D801	MA338	DIODE	1	
D803	1SS355	DIODE	1	
FP801	VJS3319B018	CONNECTOR (FEMALE)	1	
FP802	VJS3319B016	CONNECTOR (FEMALE)	1	
IC802	C1AB00001218	IC	1	
IC805	TA75S558F	IC	1	
L801	VLQ0426J6R8	COIL 6.8UH	1	G1C6R8J00006
L803-05	VLQ0807K100	COIL 10UH	3	G1C100K00024
L881	G1C100KA0005	COIL 10UH	1	
R802	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R805	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R807,08	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R832	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R834	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R835	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R836	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R841	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R849	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R850	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R851	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R852	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R878,79	ERJ3RBD183	M.RESISTOR CH 1/16W 18K	2	
R880	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
W802	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
■ E8	VEP05352A	HEAD/REC AMP C.B.A.	1	(RTL)
C5001,02	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	2	
C5004	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5007	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5010	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5013	ECUX1E152KBQ	C.CAPACITOR CH 25V 1500P	1	
C5014	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C5015	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5016	ECUX1H330JCQ	C.CAPACITOR CH 50V 33P	1	
C5017	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5018	ECUX1H220JCQ	C.CAPACITOR CH 50V 22P	1	
C5019	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5020,21	EEJK0JS106	E.CAPACITOR 6.3V 10M	2	
C5023,24	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	2	
C5025	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C5026	ECUX1E152KBQ	C.CAPACITOR CH 25V 1500P	1	
C5027	ECUX1H330JCQ	C.CAPACITOR CH 50V 33P	1	
C5028	ECUX1E122KBQ	C.CAPACITOR CH 25V 1200P	1	
C5029	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C5030	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C5031	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5032	ECUX1H470JCQ	C.CAPACITOR CH 50V 47P	1	
C5033	ECUX1E681KBQ	C.CAPACITOR CH 25V 680P	1	
C5034	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5035-37	EEJK0JS106	E.CAPACITOR 6.3V 10M	3	
C5038-40	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
FP5001	K1MN08B00040	CONNECTOR	1	
IC5001	AN3731FHQ	IC	1	
L5002,03	G1C220J00006	COIL	2	
L5005	VLQ0807M4R7	COIL 4.7UH	1	G1C4R7K00016
L5007	VLQ0807M4R7	COIL 4.7UH	1	G1C4R7K00016
Q5002,03	2SC3937	TRANSISTOR	2	
Q5005,06	2SD1819A-R	TRANSISTOR	2	
R5002	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	1	
R5003	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R5004	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R5005	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R5010	ERJ2GEJ680	M.RESISTOR CH 1/16W 68	1	
R5012	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R5013	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R5014,15	ERJ2GEJ271	M.RESISTOR CH 1/16W 270	2	
R5016,17	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R5018	ERJ2GEJ680	M.RESISTOR CH 1/16W 68	1	
R5019	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R5020	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R5021	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R5024	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R5025	ERJ2GEJ271	M.RESISTOR CH 1/16W 270	1	
R5026	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R5028	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R5029	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
		MISCELLANEOUS		
	VSC4639	SHIELD CASE	1	
■ E9	VEP04684A	FRONT C.B.A.	1	(RTL)
C4903	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C4905	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	1	
C4908	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C4910,11	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	2	
C4914	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4915	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C4916	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4917	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C6401	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C6402	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
D6801	B3AAB0000050	DIODE	1	
FL4901	J0MAB0000068	FILTER	1	
FL4902	J0MAB0000067	FILTER	1	
FP4801	VJS3452A013	CONNECTOR (FEMALE)	1	
FP4901	K1MN06B00048	CONNECTOR	1	
FP4902	VJS3319B005	CONNECTOR (FEMALE)	1	
IR6401	VEK8283	REMOTE CONTROL RECEIVER	1	B3RZB0000001
J4901	K2HC105E0003	JACK	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q4901	2SC392900L	TRANSISTOR	1	
Q4902	2SB1218A0L	TRANSISTOR	1	
Q4903	2SC392900L	TRANSISTOR	1	
Q4904	2SB1218A0L	TRANSISTOR	1	
Q4905	2SD1819A-R	TRANSISTOR	1	
QR4903,04	UN5212	TRANSISTOR-RESISTOR	2	
R4902	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4905	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R4906	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4907	ERJ6GEYG154	M.RESISTOR CH 1/10W 150K	1	
R4908	ERJ6GEYG563	M.RESISTOR CH 1/10W 56K	1	
R4909	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R4910	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4911	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R4912	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R4913	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4914	ERJ6GEYG154	M.RESISTOR CH 1/10W 150K	1	
R4915	ERJ6GEYG563	M.RESISTOR CH 1/10W 56K	1	
R4916	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R4917	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4918	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R4919	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R4924	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4925	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4926	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R4928	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4929	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4930	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R6803	ERJ6GEYG181	M.RESISTOR CH 1/10W 180	1	
		MISCELLANEOUS		
	VSC4666	FRONT SHIELD CASE (A)	1	
	VSC4667	FRONT SHIELD CASE (B)	1	
■ E10	VEP04778A	JACK C.B.A.	1	(RTL)
D7001,02	MA3062M	DIODE	2	
FL7001	VLF1393	FILTER	1	J0MAB0000076
FL7002	VLF1394	FILTER	1	J0MAB0000077
FL7003	VLF1376A256	FILTER	1	
FL7004	VLF1394	FILTER	1	J0MAB0000077
J7001	VJJ0215	RCA PIN JACK	1	K2HA303B0013
J7002	VJJ0570	JACK	1	K1CB104B0013
J7003	VJJ0531	HEADPHONE JACK	1	
L7005,06	VLF1315A102	FILTER	2	J0JHC0000015
L7009,10	VLF1315A102	FILTER	2	J0JHC0000015
P7001	VJP3950F014	CONNECTOR (MALE)	1	
R7001-04	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	
R7006-09	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	
R7025-30	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	6	
		MISCELLANEOUS		
	VMP6853	P.C.B. HOLDER ANGLE	1	
	XYN3+K6	SCREW	1	
■ E11	VEP06C24A	TOP OPERATION C.B.A.	1	(RTL)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
FP6801	VJS3320B007	CONNECTOR (FEMALE)	1	
S6801-04	K0H1BA000347	SWITCH	4	
S6806	K0H1BA000347	SWITCH	1	
■ E12	VEP06C37A	REAR OPERATION C.B.A.	1	(RTL)
B6701	VL2020/1HF	BATTERY	1	
D6701	CL150YG	DIODE	1	
D6702	B3AAB0000050	DIODE	1	
FP6701	VJS3320B016	CONNECTOR (FEMALE)	1	K1MN16B00045
FP6702	K1MN05B00028	CONNECTOR	1	
R6701	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
S6701	ESE103119	SWITCH	1	
S6702	VMG0763	SWITCH	1	
S6703	EVQPA501K	SWITCH	1	
S6704	ESD165236	SWITCH	1	
■ E13	VEP04693A	MIC C.B.A.	1	(RTL)
C4801	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C4802	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C4803	ECUM1E823KBN	C.CAPACITOR CH 25V 0.082U	1	
C4804	ECUX1H181JCV	C.CAPACITOR CH 50V 180P	1	
C4805	ECUX1C154KBN	C.CAPACITOR CH 16V 0.15U	1	
C4806	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C4807	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C4808	ECUX1H181JCV	C.CAPACITOR CH 50V 180P	1	
C4809	ECUX1C154KBN	C.CAPACITOR CH 16V 0.15U	1	
C4810	ECUM1E823KBN	C.CAPACITOR CH 25V 0.082U	1	
C4814	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C4816	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C4817	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	1	
C4830	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	1	
FP4802	K1MN06B00048	CONNECTOR	1	
FP4803	K1MN05B00028	CONNECTOR	1	
IC4801	C0ABBB000081	IC	1	
Q4805	2SD1819A-R	TRANSISTOR	1	
Q4810,11	2SD1819A-R	TRANSISTOR	2	
R4801-04	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	4	
R4805	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R4806	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4807	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R4808	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4809,10	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R4811	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R4812	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4813	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R4814	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4815,16	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R4817,18	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	2	
R4823	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R4824	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4839	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R4860	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R4861	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R4863	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4864	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
		MISCELLANEOUS		
	VEK8237	ECM ASS'Y	1	
	VMT0770	MIC DUMPER	1	
	WM-61B102A	ECM	4	
	VMP5468	MIC SUPPORT ANGLE	1	
■ E14	VEP000T6A	MOTHER C.B.A.	1	(RTL)
C1001-04	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	4	
C1005	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C1006,07	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C1008	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C1009,10	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C1011	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C1012,13	ECST1AD107Z	T.CAPACITOR CH 10V 100U	2	
C1502,03	EEVHP1C100	E.CAPACITOR 16V 10U	2	
C1504-09	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C1510,11	EEVHP0J470	E.CAPACITOR 6.3V 47U	2	
C1512-15	EEVHB1C100	E.CAPACITOR 16V 10U	4	
C1516,17	EEVHB0J470	E.CAPACITOR 6.3V 47U	2	
C1518,19	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C1520-27	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	8	
D1501	MA142WK	DIODE	1	
D1502	MA8056-MH	DIODE	1	
D1503	MA142WK	DIODE	1	
IC1001,02	TVHC244FT	IC	2	
IC1003-06	TC7SH08FU	IC	4	
IC1501-05	TVSA0021	IC	5	C0ABBA000042
L1001-17	VLP0353	COIL	17	
L1021-33	VLP0353	COIL	13	
L1034	VLP0155	COIL	1	
L1035-41	VLP0353	COIL	7	
L1042-44	VLP0364	CHIP INDUCTOR	3	
L1045-47	VLP0353	COIL	3	
L1048	VLP0364	CHIP INDUCTOR	1	
L1049	VLP0155	COIL	1	
L1050-52	VLP0353	COIL	3	
L1053	VLP0155	COIL	1	
L1054-60	VLP0353	COIL	7	
L1062-83	VLP0353	COIL	22	
L1084	VLP0155	COIL	1	
L1085-99	VLP0353	COIL	15	
L1100	VLP0364	CHIP INDUCTOR	1	
L1101-03	VLP0328A102	FERRITE CORE	3	
L1104-09	VLP0364	CHIP INDUCTOR	6	
L1502-09	VLP0364	CHIP INDUCTOR	8	
L1510,11	VLP0353	COIL	2	
P1001	VJS3320B012	CONNECTOR (FEMALE)	1	
P1002	VJP3950C007	CONNECTOR (MALE)	1	K1KA07A00118
P1003	VJS3320B007	CONNECTOR (FEMALE)	1	
P1004	VJS3319B014	CONNECTOR (FEMALE)	1	
P1005	K1MN16A00028	CONNECTOR	1	
P1006	VJS3320B016	CONNECTOR (FEMALE)	1	K1MN16B00045
P1007	K1KA20A00180	CONNECTOR (MALE)	1	
P1008	VJP3172D002	CONNECTOR (MALE)	1	K1KA02B00051
P1009	VJS3319B018	CONNECTOR (FEMALE)	1	
P1010	VJS3846A030	CONNECTOR (FEMALE)	1	
P1011	K1KB30A00083	CONNECTOR (FEMALE)	1	
P1012	VJS3846A080	CONNECTOR (FEMALE)	1	
P1013	VJP3949A080H	CONNECTOR (MALE)	1	
P1014	VJS3320B013	CONNECTOR (FEMALE)	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
P1015	VJS3319B013	CONNECTOR (FEMALE)	1	
P1016	VJS3319B005	CONNECTOR (FEMALE)	1	
P1017	VJP4271A005	CONNECTOR (MALE)	1	
P1018	K1KA70A00024	CONNECTOR (MALE)	1	
P1019	VJS3319B050	CONNECTOR (FEMALE)	1	
P1020	VJP3172D002	CONNECTOR (MALE)	1	K1KA02B00051
P1021	VJS3319B018	CONNECTOR (FEMALE)	1	
P1023	VJP4271A006	CONNECTOR (MALE)	1	
P1025	VJS3452A008	CONNECTOR (FEMALE)	1	
P1501	VJP1230T	CONNECTOR (MALE) 3P	1	
P1502	K1MN16A00028	CONNECTOR	1	
P1503	VJP3172B010	CONNECTOR (MALE)	1	
P1504	VJP3950F014	CONNECTOR (MALE)	1	
P1505	VJS3319B016	CONNECTOR (FEMALE)	1	
Q1001	2SB710A-R	TRANSISTOR	1	
QR1001	UN5212	TRANSISTOR-RESISTOR	1	
QR1501	UN5213	TRANSISTOR-RESISTOR	1	
R1003,04	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R1007,08	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R1010	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1028-45	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	18	
R1048	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1049	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R1050	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1052	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1054	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1055	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R1056-68	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	13	
R1070	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1071	ERJ3GEYJ750	M.RESISTOR CH 1/16W 75	1	
R1072,73	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R1074	ERJ3GEYJ750	M.RESISTOR CH 1/16W 75	1	
R1075	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1076,77	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	2	
R1078	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1079	ERJ3GEYJ750	M.RESISTOR CH 1/16W 75	1	
R1080-87	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	8	
R1502	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1503-05	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	3	
R1506,07	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R1509	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1511,12	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R1514-18	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	5	
R1520-23	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	4	
R1524-31	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	8	
		MISCELLANEOUS		
	VGQ6095	BUS FLEX FIX STAND	1	
	XTV26+6G	SCREW	1	
	VWJ1456	BUS FLEX	1	
	VMZ3166	EVR SHIELD SHEET	2	
	VEE0N81	SUB POWER CABLE	1	
■ E15	VEP000R1A	EJECT C.B.A.	1	(RTL)
P6001	VJP4271A002	CONNECTOR (MALE)	1	
SW6001	ESD165236	SWITCH	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E16	VEP000R3A	REMOTE CONTROL C.B.A.	1	(RTL)
C3001	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C3002	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
D3001	LN28CALUS	DIODE	1	
IC3001	VEK8283	REMOTE CONTROL RECEIVER	1	B3RZB0000001
P3001	VJP3172D005	CONNECTOR (MALE)	1	K1KA05B00053
R3001	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
		MISCELLANEOUS		
	VMX1658	LED HOLDER	1	
■ E17	VEP000R4A	GRIP ZOOM SW C.B.A.	1	(RTL)
P5001	VJP3331B003	CONNECTOR (MALE)	1	
P5002	VJS2907D003	CONNECTOR (FEMALE)	1	
R5001	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R5004	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
■ E18	VEP000R5A	AWT INT C.B.A.	1	(RTL)
P2501	VJS3320B005	CONNECTOR (FEMALE)	1	
P2502	VJS3452A008	CONNECTOR (FEMALE)	1	
■ E19	VEP000R6A	BATTERY INT C.B.A.	1	(RTL)
P8001	VJP1232T	CONNECTOR (MALE) 5P	1	
P8002	VJS3319B014	CONNECTOR (FEMALE)	1	
■ E20	VEP06E27A	LCD CONTROL C.B.A.	1	(RTL)
C6101	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C6102,03	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	2	
C6104	EEVHB1E4R7	E.CAPACITOR 25V 4.7U	1	
C6105	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C6106	EEVHB1E4R7	E.CAPACITOR 25V 4.7U	1	
C6107	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C6108-10	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C6201	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C6202-04	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
D6101	LN043572P	LED	1	
DP6101	VSL0252	DISPLAY TUBE PANEL	1	EDD063ZS5A4P
IC6101	UPD78F9418AG	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC6102	BA6138F	IC	1	
IC6103	MN13821-S	IC	1	
IC6104	TVHC126FT	IC	1	
IC6105	TVHT126FT	IC	1	
IC6106	TVHT125FT	IC	1	
L6201	VLQ0319K101	COIL 100UH	1	G1C101K00022
P6001,02	VJS3791D014	CONNECTOR (FEMALE)	2	
P6003,04	VJP3172D002	CONNECTOR (MALE)	2	K1KA02B00051
P6005	VJS3319B050	CONNECTOR (FEMALE)	1	
P6006	VJS3452A008	CONNECTOR (FEMALE)	1	
P6007	VJS3319B018	CONNECTOR (FEMALE)	1	
P6008	VJS3320B012	CONNECTOR (FEMALE)	1	
P6101	VJP3950A009	CONNECTOR (MALE)	1	
Q6201	2SD1819A-R	TRANSISTOR	1	
Q6202,03	2SB1218A-R	TRANSISTOR	2	
Q6204-06	2SD1819A-R	TRANSISTOR	3	
Q6207	2SB1218A-R	TRANSISTOR	1	
Q6208,09	2SD1819A-R	TRANSISTOR	2	
Q6210	XN1501	TRANSISTOR-RESISTOR	1	
Q6211	2SD1819A-R	TRANSISTOR	1	
QR6101	UN5111	TRANSISTOR-RESISTOR	1	
QR6201	UN5213	TRANSISTOR-RESISTOR	1	
R6001-06	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	6	
R6007-11	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	5	
R6012-19	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	8	
R6020	ERJ3RBD821	M.RESISTOR CH 1/16W 820	1	
R6022	ERJ3RBD821	M.RESISTOR CH 1/16W 820	1	
R6024-31	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	8	
R6101	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6102-04	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	3	
R6105	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6106	ERJ6GEYG331	M.RESISTOR CH 1/10W 330	1	
R6107	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6108-13	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	6	
R6114-17	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	
R6118	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6119	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6120,21	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R6122	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6123	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6124,25	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R6126	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6127,28	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R6129-31	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R6133	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6134	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6135	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6139-41	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R6142	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6143-45	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R6146-53	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	8	
R6154	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6157-59	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R6162	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6163	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R6164-66	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	3	
R6201	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6202	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R6203	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R6204	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R6205,06	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R6207	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R6208,09	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R6210,11	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	2	
R6212	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6213	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6214	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6215	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R6216	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6217	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R6218	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6219	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R6220	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R6221,22	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	2	
R6223	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6224	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6225	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R6226-28	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	3	
SW6101	VSS0367-04B	SWITCH	1	
VR6001,02	VRV0279	V.RESISTOR	2	D2BCA54B0003
X6101	VSX0792	CRYSTAL OSCILLATOR	1	H0J491400007
		MISCELLANEOUS		
	VJF0948	LCD HOLDER	1	
■ E21	VEP000U4A	EVF INT C.B.A.	1	(RTL)
P9001,02	VJS3319B018	CONNECTOR (FEMALE)	2	
R9001,02	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
■ E22	VEP000S2A	PHOTO SHOT SW C.B.A.	1	(RTL)
P5501	VJP3172D004	CONNECTOR (MALE)	1	K1KA04B00007
SW5501	EVQP1D05M	SWITCH	1	
■ E23	VEP22278A	CAMERA SUB C.B.A.	1	(RTL)
C101	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C102	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C103	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C104	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C107	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C108,09	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	2	
C111	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C112,13	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	2	
C115	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C117	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C119	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C124	ECUX1H270JCQ	C.CAPACITOR CH 50V 27U	1	
C125,26	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	2	
C127,28	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	2	
C129	ECST1DY475Z	T.CAPACITOR CH 20V 4.7U	1	
C130	ECST1VX155Z	T.CAPACITOR CH 35V 1.5U	1	
C131	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C132	ECST1DY475Z	T.CAPACITOR CH 20V 4.7U	1	
C133	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C134-36	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	3	
C154	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C155	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C163	ECUX1C153KBQ	C.CAPACITOR CH 16V 0.015U	1	
C500	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C501	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C504	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C506	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C507	ECUX1H180JCQ	C.CAPACITOR CH 50V 18P	1	
C508,09	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	2	
C510	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C511	ECUX1H180JCQ	C.CAPACITOR CH 50V 18P	1	
C512	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C513	ECUX1H180JCQ	C.CAPACITOR CH 50V 18P	1	
C514	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C515	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C516-20	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	5	
C521	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C522	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C523	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	1	
C524	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C525-27	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	3	
C528	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C529	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	1	
C530-41	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	12	
C542-44	EEJK0JS106	E.CAPACITOR 6.3V 10M	3	
C545	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C546	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	1	
C547	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C548,49	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	2	
C550-58	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	9	
C559	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C560	ECST0JY475Z	T.CAPACITOR CH6.3V 4.7U	1	
C561,62	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	2	
C563	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C564	F1K1A225A007	C.CAPACITOR CH 10V 2.2U	1	
C565	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C566	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C567	F1K1A225A007	C.CAPACITOR CH 10V 2.2U	1	
C568	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C569	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C570	F1K1A225A007	C.CAPACITOR CH 10V 2.2U	1	
C571	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C572-74	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	3	
C575,76	ECST0JY156	T.CAPACITOR CH6.3V 15U	2	
C577	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C578	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C579	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C580	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C581	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C582,83	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	2	
C585	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C586	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C587	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	1	
C589	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
D103	MA728	DIODE	1	
D104	1SS355	DIODE	1	
D105	MA728	DIODE	1	
D110	MA728	DIODE	1	
D501	1SS355	DIODE	1	
D502	MA3J741E0L	DIODE	1	
D503,04	1SS355	DIODE	2	
FL501-03	VLF1173	FILTER	3	
FL504-06	VLF1374	FILTER	3	
FP501	K1MN51B00001	CONNECTOR	1	
FP502	K1MN05B00028	CONNECTOR	1	
IC101,02	TC7SH08FU	IC	2	
IC106	MN5236	IC	1	
IC107,08	MB87882PFV	IC	2	C0ZBZ0000194
IC109	C0JBAB000196	IC	1	
IC110	YWTC7SH04F	IC	1	
IC111	TC7SH08FU	IC	1	
IC112	YWTC7SH04F	IC	1	
IC501	C0ZBZ0000042	IC	1	
IC502,03	AN2018S	IC	2	
IC504	C1AB00000502	IC	1	
IC505	TA75W01FU	IC	1	
IC506	AN2018S	IC	1	
IC507	MB88344PFV	IC	1	C0FBBD000096

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC508	C0DBZGA00009	IC	1	
IC509	NJM2902V	IC	1	
IC510	C3EBFG000004	IC	1	
L101,02	VLQ0807K100	COIL 10UH	2	G1C100K00024
L106-08	VLQ0807K100	COIL 10UH	3	G1C100K00024
L114	G1C330KA0004	COIL 330UH	1	
L501	VLQ0807K100	COIL 10UH	1	G1C100K00024
L502-04	G1C330KA0004	COIL 330UH	3	
L505,06	VLQ0807K100	COIL 10UH	2	G1C100K00024
L507	G1C6R8M00004	COIL 6.8UH	1	
L512	VLQ0807K100	COIL 10UH	1	G1C100K00024
L513	G1C6R8M00004	COIL 6.8UH	1	
LB101	VLP0154	COIL	1	J0JCC0000058
LB102,03	VLF1144A102	FILTER	2	
PP101	K1KA26A00078	CONNECTOR (MALE)	1	
Q501-03	2SB1462JHL	TRANSISTOR	3	
Q504	2SB1073	TRANSISTOR	1	
Q505	2SD2216J0L	TRANSISTOR	1	
Q506	2SB1462JHL	TRANSISTOR	1	
Q507-09	2SD2216J0L	TRANSISTOR	3	
Q510	2SB0970X0L	TRANSISTOR	1	
QR501-06	UNR9212J0L	TRANSISTOR	6	
R101	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R102	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R104	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R105	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R111	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R112	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R113	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R114,15	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	2	
R116	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R117,18	ERJ2GEJ271	M.RESISTOR CH 1/16W 270	2	
R127	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R131	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R135	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R138,39	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	2	
R142	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R146	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R147	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	1	
R148-53	ERJ2GEJ330	M.RESISTOR CH 1/16W 33	6	
R501,02	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	2	
R503-07	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	5	
R508	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	1	
R509	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R510	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	1	
R511	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R512	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	1	
R513	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R514	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R515	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R516	ERJ2RHD153	M.RESISTOR CH 1/16W 15K	1	
R517	ERJ2RHD102	M.RESISTOR CH 1/16W 1K	1	
R518	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R519	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R520,21	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	2	
R522	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R523	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R524	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R525	ERJ2RHD513	M.RESISTOR CH 1/16W 51K	1	
R526	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R527	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R528	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R529	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R530	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R531	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R532	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R533,34	ERJ2RHD513	M.RESISTOR CH 1/16W 51K	2	
R535	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R536	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R537,38	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	2	
R539	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	1	
R540	ERJ2RHD133	M.RESISTOR CH 1/16W 13K	1	
R541	ERJ2RHD183	M.RESISTOR CH 1/16W 18K	1	
R542	ERJ2RHD133	M.RESISTOR CH 1/16W 13K	1	
R543-45	ERJ2GEJ271	M.RESISTOR CH 1/16W 270	3	
R546	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R547	ERJ2RHD102	M.RESISTOR CH 1/16W 1K	1	
R548	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R549	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R550	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R551	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R552	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R553	ERJ2RHD393	M.RESISTOR CH 1/16W 39K	1	
R554	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R555	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R556	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R557,58	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	2	
R559	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R560-62	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	3	
R563-65	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	3	
R566	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R567	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R568	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R569	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R570	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R571	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R572	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R573	ERJ2RHD163	M.RESISTOR CH 1/16W 16K	1	
R574	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R575	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R576	ERJ2GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R577	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R578	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R579	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R580	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R581	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	1	
R582	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R585	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R586,87	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	2	
R588	ERJ2GEJ821	M.RESISTOR CH 1/16W 820	1	
R589-91	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	3	
R592,93	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	2	
W101	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
W105-07	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	3	
W109	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
W112	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
W114	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
X101	H1A3155B0001	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VGQ2184	TAPE	1	
	VGQ4731	BARRIER	1	
■ E24	VEP01896A	SUB POWER C.B.A.	1	(RTL)
C1501	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C1502	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C1504,05	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C1506	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C1508	ECUX1C105KBN	C.CAPACITOR CH 10V 1U	1	
C1509	ECUM1C334KBN	C.CAPACITOR CH 16V 0.33U	1	
C1510	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C1511	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1512	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C1513	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C1514	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C1515	EEVHB1H2R2	E.CAPACITOR 50V 2.2U	1	
C1516	ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C1517	EEVHB1H2R2	E.CAPACITOR 50V 2.2U	1	
C1518	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	F1H1H102A009
C1519	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1521	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	F1H1H102A009
C1522	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C1524	ECUX1A105KBV	C.CAPACITOR CH 10V 1U	1	
C1525	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1526	ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C1527	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C1528,29	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	2	
C1530	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C1531	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1532	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	F1H1H102A009
C1533	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C1534	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	1	
C1535	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C1536	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C1539	VCK0303K225	C.CAPACITOR 2.2U	1	
C1541	ECUX1C225KBM	C.CAPACITOR CH 16V 2.2U	1	
C1542	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C1544	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	F1H1H102A009
C1545	EEAFC1C560	E.CAPACITOR 16V 56U	1	
C1547,48	ECUX1A225KBM	C.CAPACITOR CH 10V 2.2U	2	
C1549	ECUX1E334KBM	C.CAPACITOR CH 25V 0.33U	1	
C1550	ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C1551	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	1	
C1552	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1553	EEAFC1C560	E.CAPACITOR 16V 56U	1	
C1554	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C1555,56	EEAFC1C560	E.CAPACITOR 16V 56U	2	
C1557	ECUX1E334KBM	C.CAPACITOR CH 25V 0.33U	1	
C1567	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C1568	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1701,02	ECUX1A105KBV	C.CAPACITOR CH 10V 1U	2	
C1704	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1705	ECUX1A105KBV	C.CAPACITOR CH 10V 1U	1	
C1706	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C1707	ECUX1A105KBV	C.CAPACITOR CH 10V 1U	1	
C1708	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C1709	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	
C1710-12	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	3	
D1501	MA8056-MH	DIODE	1	
D1502	DE5SC4M-4061	DIODE	1	
D1503-06	MA132WK	DIODE	4	
D1507	MA111	DIODE	1	
D1508	B0JCMD000004	DIODE	1	
D1509	MA720	DIODE	1	
D1510,11	MA111	DIODE	2	
D1512	MAZ82200ML	DIODE	1	
D1513	MA147	DIODE	1	
D1514	MA720	DIODE	1	
D1516	MA720	DIODE	1	
D1701,02	MA8120-M	DIODE	2	
D1703-05	MA132WK	DIODE	3	
D1707	MA8062-MH	DIODE	1	
D1708	MA1070400L	DIODE	1	
D1710,11	MA132WK	DIODE	2	
IC1501	BA9706K	IC	1	C0DBAZZ00012
IC1502	BA9743AFV	IC	1	
IC1503	TA75W393FU	IC	1	
IC1702	TC7S00FU	IC	1	
IC1703	AN77L03M	IC	1	
L1501	VLP0353	COIL	1	
L1503,04	VLP0353	COIL	2	
L1505	G1C4R7M00009	COIL 4.7UH	1	
L1506	VLQ0319K100	COIL 10UH	1	G1C100K00023
L1507	G1A220F00006	COIL 22UH	1	
L1508	G1A331C00002	COIL 330UH	1	
L1509	VLQ0319K100	COIL 10UH	1	G1C100K00023
L1510	VLQ0319K101	COIL 100UH	1	G1C101K00022
L1511	G1A331C00002	COIL 330UH	1	
L1512	G1A102B00003	COIL 1000UH	1	
L1513	VLQ0319K100	COIL 10UH	1	G1C100K00023
L1701-03	VLQ0319K100	COIL 10UH	3	G1C100K00023
L1705-07	VLQ0319K100	COIL 10UH	3	G1C100K00023
P1501	VJP1232T	CONNECTOR (MALE) 5P	1	
P1701	VJP1232T	CONNECTOR (MALE) 5P	1	
P1702	K1MN16A00028	CONNECTOR	1	
Q1501	2SD2216J	TRANSISTOR	1	
Q1502	B1ADCF000059	TRANSISTOR	1	
Q1503	8P2M	DIODE	1	B2AAJM000001
Q1505	2SD221000L	TRANSISTOR	1	
Q1506	2SB10730LL	TRANSISTOR	1	
Q1510	2SD2216J	TRANSISTOR	1	
Q1511	2SB766A-R	TRANSISTOR	1	
Q1512	2SD221000L	TRANSISTOR	1	
Q1513	XP4601	TRANSISTOR-RESISTOR	1	
Q1701	B1ABCF000077	TRANSISTOR	1	
Q1702	B1HDCFA00002	TRANSISTOR	1	
Q1703	B1ADCF000059	TRANSISTOR	1	
Q1704	B1HBCFD00001	TRANSISTOR	1	
Q1705	XP4601	TRANSISTOR-RESISTOR	1	
Q1706	2SD2216J	TRANSISTOR	1	
Q1707	B1ADCF000059	TRANSISTOR	1	
Q1708	2SD2216J	TRANSISTOR	1	
QR1501	UN9217	TRANSISTOR-RESISTOR	1	
QR1502	UN9213	TRANSISTOR-RESISTOR	1	
QR1503	UN9112J	TRANSISTOR	1	
QR1504	UNR9113J0L	TRANSISTOR	1	
QR1505	UN9213	TRANSISTOR-RESISTOR	1	
QR1506	UN9112J	TRANSISTOR	1	
QR1701	UNR9113J0L	TRANSISTOR	1	
QR1702,03	UN2130X	TRANSISTOR-RESISTOR	2	
QR1704	UN9112J	TRANSISTOR	1	
R1501	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R1502	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1503	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1504,05	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R1507	ERJ12Y0R00	M.RESISTOR CH 1/2W 0	1	
R1509	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1510	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
⚠ R1511	K5H312300003	FUSE	1	
R1512	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R1513	ERJ3GEYJ684	M.RESISTOR CH 1/16W 680K	1	
R1514	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1515	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1516	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1517	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1519	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R1520	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R1521	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1522	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1523	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
⚠ R1524	K5H1223A0001	FUSE	1	
R1525	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1527	ERJ3RBD393	M.RESISTOR CH 1/16W 39K	1	
R1528	ERJ3RBD363	M.RESISTOR CH 1/16W 36K	1	
R1531	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R1533	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R1535	ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R1536,37	ERJ3RBD182	M.RESISTOR CH 1/16W 1.8K	2	
R1538	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1539	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1540	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R1541	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1542	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R1543	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1545,46	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	2	
R1547	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1550	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R1551	ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	

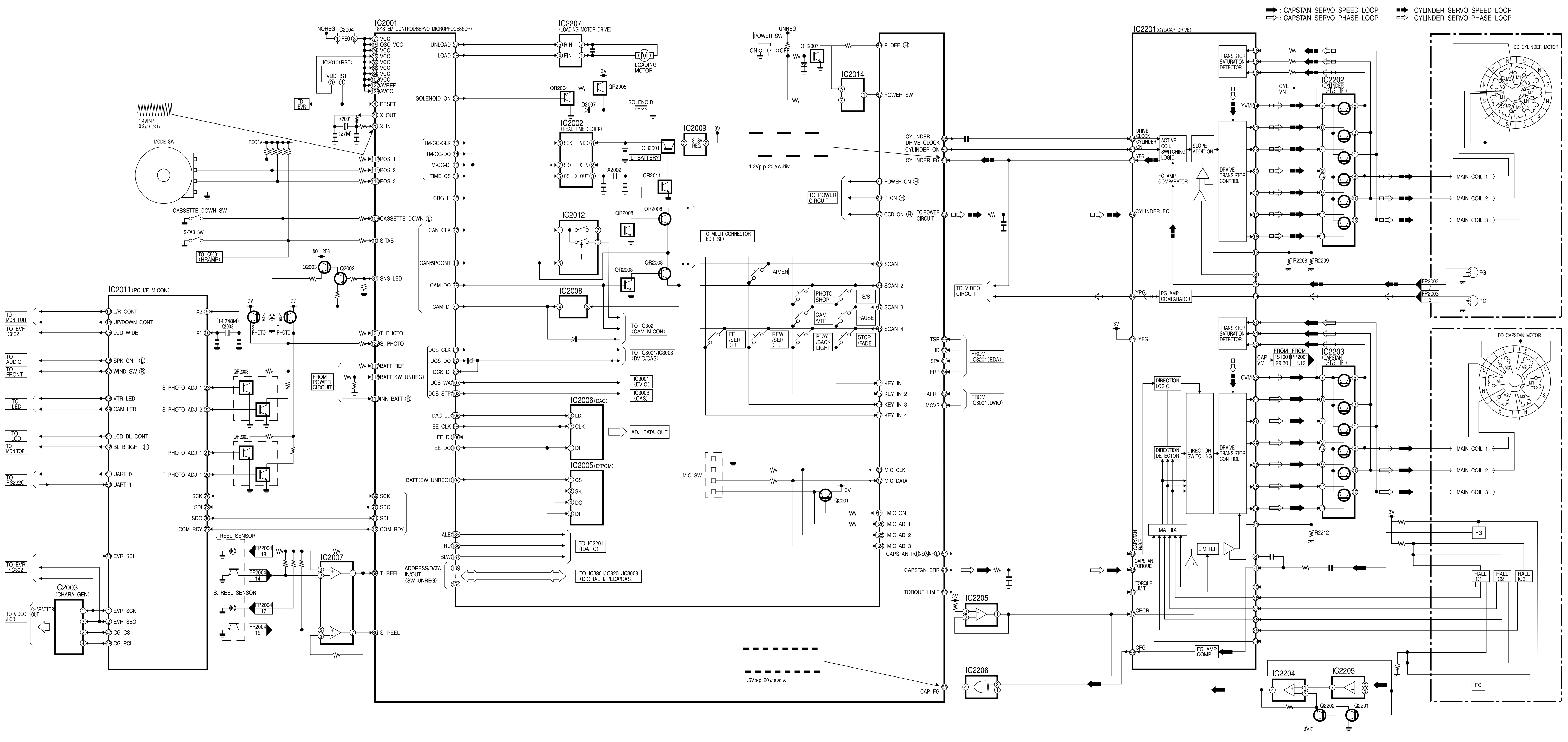
Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R1552	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1553,54	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	2	
R1555	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R1557	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R1558	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R1559	ERJ3RBD181	M.RESISTOR CH 1/16W 180	1	
R1560	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R1561	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R1562	ERJ3RBD152	M.RESISTOR CH 1/16W 1.5K	1	
R1563	ERJ3RBD183	M.RESISTOR CH 1/16W 18K	1	
R1564	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R1565	ERJ3RBD822	M.RESISTOR CH 1/16W 8.2K	1	
R1566	ERJ3RBD152	M.RESISTOR CH 1/16W 1.5K	1	
R1567	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	1	
R1568	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R1569	ERJ3RED244	M.RESISTOR CH 1/16W 240K	1	
R1570	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R1571	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1572	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1573	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1574	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R1575,76	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R1577	ERJ3RBD822	M.RESISTOR CH 1/16W 8.2K	1	
R1578	ERJ3RED270	M.RESISTOR CH 1/16W 27	1	
R1579	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R1580	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R1581	ERJ3RBD561	M.RESISTOR CH 1/16W 560	1	
R1582	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R1584	ERJ8GEYJ330	M.RESISTOR CH 1/8W 33	1	
R1585	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1586	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	1	
R1587	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1588	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R1589	ERJ6GEYF472	M.RESISTOR CH 1/10W 4.7K	1	
R1590	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R1591	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1592	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1593,94	ERJ6GEYG332	M.RESISTOR CH 1/10W 3.3K	2	
R1595	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	1	
R1596	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1597	ERJ12Y0R00	M.RESISTOR CH 1/2W 0	1	
R1601,02	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R1604	ERJ3RBD302	M.RESISTOR CH 1/16W 3K	1	
R1607-10	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	4	
R1702	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R1703	ERJ3GEYJ274	M.RESISTOR CH 1/16W 270K	1	
R1704	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R1706	ERJ3RBD823	M.RESISTOR CH 1/16W 82K	1	
R1707	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	
R1708	ERJ3RED514	M.RESISTOR CH 1/16W 510K	1	
R1709	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R1710	ERJ3GEYJ133	M.RESISTOR CH 1/16W 13K	1	
R1711	ERJ3RED274	M.RESISTOR CH 1/16W 240K	1	
R1712	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R1713	ERJ3RBD391	M.RESISTOR CH 1/16W 390	1	
R1714	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1715	ERJ3RBD683	M.RESISTOR CH 1/16W 68K	1	
R1716	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1717,18	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R1719	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R1720,21	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R1722	ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R1723	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1725-29	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	5	
T1501	G5DYA0000025	TRANSFORMER	1	
TG1701	EYF6CU	TEST POINT	1	
		MISCELLANEOUS		
	VSC5247	SUB POWER SHIELD PLATE	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E25	VEP000T7A	ZOOM C.B.A.	1	(RTL)
P4001	VJP3950A007D	CONNECTOR (MALE)	1	
SW4001	K0H1BA000399	SWITCH	1	
SW4002,03	K0H1BA000105	SWITCH	2	
■ E26	VEP000T8A	EVR EXT C.B.A.	1	(RTL)
P21,22	K1KA60A00065	CONNECTOR	2	
P23	VJS3452A008	CONNECTOR (FEMALE)	1	
		MISCELLANEOUS		
	VMP6854	EVR HOLDER ANGLE	1	
	XYN2+J6	SCREW	2	
■ E27	VEP000T9A	SW C.B.A.	1	(RTL)
P601	VJS3452A008	CONNECTOR (FEMALE)	1	
R601-06	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	6	
R607,08	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
SW601,02	VSS0279	SWITCH	2	K0D112A00094
SW603	VSS0220	SWITCH	1	K0D123A00062
SW604	VSP1031	SWITCH	1	K0H1BA000328
■ E28	VEP04777A	MIC AMP C.B.A.	1	(RTL)
C4701-04	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	4	
C4705,06	EEVHB1C100	E.CAPACITOR 16V 10U	2	
C4707,08	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C4709-12	EEVHB1H100P	E.CAPACITOR 50V 10U	4	
C4713,14	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C4719-22	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C4723-27	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	5	
C4728,29	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C4730	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C4731,32	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C4733	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C4734	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C4735	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C4736-40	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C4741-44	EEVHB0J470	E.CAPACITOR 6.3V 47U	4	
C4745,46	EEVHB1C470	E.CAPACITOR 16V 47U	2	
C4747-50	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C4751-54	EEVHB0J470	E.CAPACITOR 6.3V 47U	4	
C4807,08	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
D4701-04	MA3J14300L	DIODE	4	
D4705,06	MA716	DIODE	2	
IC4701,02	TVSA0021	IC	2	C0ABBA000042
IC4705-07	NJM2122M	IC	3	
IC4709	NJM2122M	IC	1	
IC4710	MC14053BDT	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC4711	NJM79L05UA	IC	1	
IC4712,13	NJM78L05UA	IC	2	C0CBADC00010
IC4714	NJM79L05UA	IC	1	
J4801,02	VJS3551A	AUDIO IN CONNECTOR	2	K1AB103B0012
L4701-04	VLQ0163J100	COIL 10UH	4	
L4801	VLF1315A102	FILTER	1	J0JHC0000015
L4803	VLF1315A102	FILTER	1	J0JHC0000015
L4805	VLF1315A102	FILTER	1	J0JHC0000015
L4807,08	VLF1315A102	FILTER	2	J0JHC0000015
L4810	VLF1315A102	FILTER	1	J0JHC0000015
P4801	VJP3172B010	CONNECTOR (MALE)	1	
P4802	VJS3320B016	CONNECTOR (FEMALE)	1	K1MN16B00045
R4703	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4706,07	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R4708	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4709	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4710	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4711-14	ERJ3RBD273	M.RESISTOR CH 1/16W 27K	4	
R4715-18	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	4	
R4719	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R4720	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R4723	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R4724,25	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	2	
R4726-30	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	5	
R4731	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R4732	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R4735,36	ERJ3RBD241	M.RESISTOR CH 1/16W 240	2	
R4737-45	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	9	
R4746	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4747	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R4748	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4749,50	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	2	
R4753,54	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R4755,56	ERJ3RED330	M.RESISTOR CH 1/16W 33	2	
R4759-62	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	
R4801-05	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	5	
SW4701,02	K0D142B00022	SWITCH	2	
TP4701,02	EYF6CU	TEST POINT	2	
		MISCELLANEOUS		
	VSC5239	SHIELD CASE (UPPER)	1	
	XYN3+K6	SCREW	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks

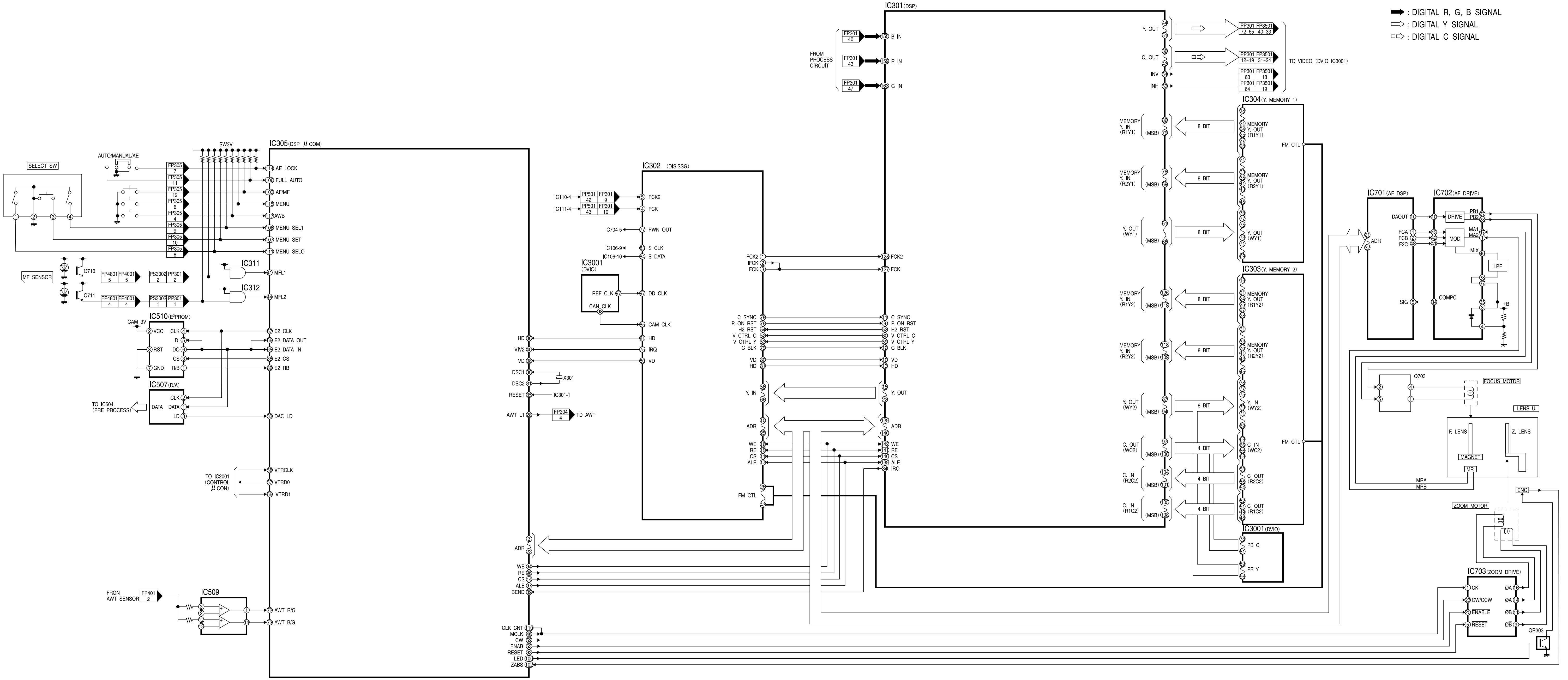
SYSTEM CONTROL & SERVO BLOCK DIAGRAM


: CAPSTAN SERVO SPEED LOOP
: CAPSTAN SERVO PHASE LOOP
: CYLINDER SERVO SPEED LOOP
: CYLINDER SERVO PHASE LOOP
IC2001 (SYSTEM CONTROL/SERVO MICROPROCESSOR)
NOREG
IC2004
REG
IC2010 (RST)
VDD RST
TO EVR
X2001 (27M)
1.4VP-P 0.2μs./div.
MODE SW
REG3V
CASSETTE DOWN SW
S-TAB SW
TO IC3001 (HIRAMP)
NO REG
Q2003
Q2002
VCC
OSC VCC
AVREF
AVCC
RESET
X OUT
X IN
POS 1
POS 2
POS 3
CASSETTE DOWN L
S-TAB
SNS LED
T. PHOTO
S. PHOTO
BATT REF
BATT (SW UNREG)
INN BATT R
FROM POWER CIRCUIT
SCK
SDO
SDI
COM RDY
T. REEL
S. REEL
T. REEL SENSOR
S. REEL SENSOR
FP2004
IC2007
IC2011 (PC I/F MICON)
L/R CONT
UP/DOWN CONT
LCD WIDE
SPK ON L
WIND SW R
VTR LED
CAM LED
LCD BL CONT
BL BRIGHT R
UART 0
UART 1
EVR SBI
EVR SCK
EVR SBO
CG CS
CG PCL
X2
X1
(14.748M) X2003
S. PHOTO
T. PHOTO
S PHOTO ADJ 1
S PHOTO ADJ 2
T PHOTO ADJ 1
QR2003
QR2002
TO MONITOR
TO EVF IC802
TO AUDIO
TO FRONT
TO LED
TO LCD
TO MONITOR
TO RS232C
TO EVR IC302
IC2003 (CHARA GEN)
TO VIDEO LCD
CHARACTOR OUT
IC2207 (LOADING MOTOR DRIVE)
UNLOAD
LOAD
RIN
FIN
LOADING MOTOR
SOLENOID ON
QR2004
QR2005
D2007
SOLENOID
3V
IC2002 (REAL TIME CLOCK)
TM-CG-CLK
TM-CG-DO
TM-CG-DI
TIME CS
SCK
SIO
CS
VDD
X IN
X OUT
X2002
QR2001
LI BATTERY
QR2011
IC2009
3. 8V REG
CRG LI
IC2012
CAN CLK
CAN/SPCONT
CAM DO
CAM DI
QR2008
TO MULTI CONNECTOR (EDIT SP)
IC2008
TO IC302 (CAM MICON)
DCS CLK
DCS DO
DCS DI
DCS WA
DCS STP
TO IC3001/IC3003 (DVIO/CAS)
IC3001 (DVIO)
IC3003 (CAS)
IC2006 (DAC)
DAC LD
EE CLK
EE DI
EE DO
LD
CLK
DI
ADJ DATA OUT
IC2005 (E²POM)
BATT (SW UNREG)
CS
SK
DO
DI
ALE
RD
BLW
TO IC3201 (IDA IC)
ADDRESS/DATA IN/OUT (SW UNREG)
TO IC3801/IC3201/IC3003 (DIGITAL I/F/EDA/CAS)
UNREG
POWER SW
ON
OFF
QR2007
IC2014
P OFF H
POWER SW
1.2Vp-p. 20μs./div.
CYLINDER DRIVE CLOCK
CYLINDER ON
CYLINDER FG
POWER ON H
P ON H
CCD ON H
TO POWER CIRCUIT
SCAN 1
SCAN 2
SCAN 3
SCAN 4
TAIMEN
PHOTO SHOP
S/S
CAM /VTR
PAUSE
FF /SER (+)
REW /SER (−)
PLAY /BACK LIGHT
STOP /FADE
KEY IN 1
KEY IN 2
KEY IN 3
KEY IN 4
MIC SW
MIC CLK
MIC DATA
Q2001
MIC ON
MIC AD 1
MIC AD 2
MIC AD 3
TSR
HID
SPA
FRP
FROM IC3201 (EDA)
AFRP
MCVS
FROM IC3001 (DVIO)
TO VIDEO CIRCUIT
CAPSTAN R/S/FL
CAPSTAN ERR
TORQUE LIMIT
IC2205
1.5Vp-p. 20μs./div.
CAP FG
IC2206
IC2201 (CYL/CAP DRIVE)
DRIVE CLOCK
CYLINDER ON
YFG
ACTIVE COIL SWITCHING LOGIC
SLOPE ADDITION
FG AMP COMPARATOR
DRAIVE TRANSISTOR CONTROL
TRANSISTOR SATURATION DETECTOR
CYLINDER EC
YVM
CYL VN
IC2202 (CYLINDER DRIVE TR.)
R2208
R2209
YPG
FG AMP COMPARATOR
FP2003
FG
PG
DD CYLINDER MOTOR
MAIN COIL 1
MAIN COIL 2
MAIN COIL 3
YFG
CAP VM
FROM PS1001 29.30
FROM PP2001 11.12
IC2203 (CAPSTAN DRIVE TR.)
CVM
DIRECTION LOGIC
DIRECTION DETECTOR
DIRECTION SWITCHING
DRAIVE TRANSISTOR CONTROL
MATRIX
LIMITER
CAPSTAN R/S/F
CAPSTAN TORQUE
TORQUE LIMIT
CECR
CFG
FG AMP COMP.
R2212
DD CAPSTAN MOTOR
HALL IC1
HALL IC2
HALL IC3
IC2204
IC2205
Q2202
Q2201
3V

BLK-1

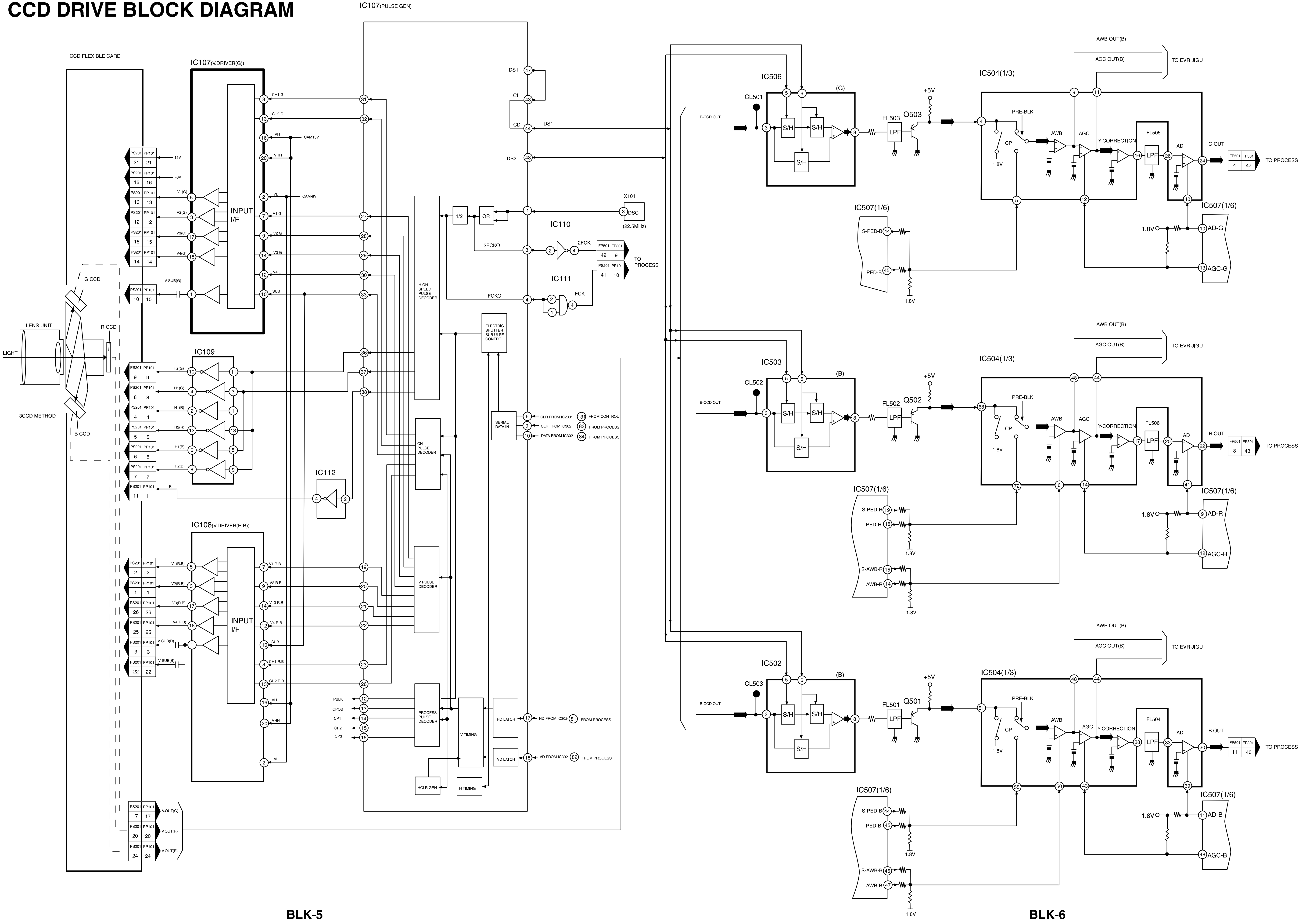
BLK-2

PROCESS BLOCK DIAGRAM



: DIGITAL R, G, B SIGNAL
: DIGITAL Y SIGNAL
: DIGITAL C SIGNAL
IC301(DSP)
FROM PROCESS CIRCUIT
B IN
R IN
G IN
Y. OUT
C. OUT
INV
INH
TO VIDEO (DVIO IC3001)
IC304(Y, MEMORY 1)
IC303(Y, MEMORY 2)
MEMORY Y. IN (R1Y1)
MEMORY Y. OUT (R1Y1)
MEMORY Y. IN (R2Y1)
MEMORY Y. OUT (R2Y1)
Y. OUT (WY1)
MEMORY Y. IN (R1Y2)
MEMORY Y. OUT (R1Y2)
MEMORY Y. IN (R2Y2)
MEMORY Y. OUT (R2Y2)
Y. OUT (WY2)
Y. IN (WY2)
C. OUT (WC2)
C. IN (WC2)
C. IN (R2C2)
C. OUT (R2C2)
C. IN (R1C2)
C. OUT (R1C2)
(MSB)
8 BIT
4 BIT
FM CTL
IC3001(DVIO)
PB C
PB Y
IC302 (DIS,SSG)
FCK2
FCK
PWN OUT
S CLK
S DATA
DD CLK
CAM CLK
HD
IRQ
VD
C SYNC
P. ON RST
H2 RST
V CTRL C
V CTRL Y
C BLK
Y. IN
Y. OUT
ADR
WE
RE
CS
ALE
IFCK
IC110-4
IC111-4
IC704-5
IC106-9
IC106-10
IC3001 (DVIO)
REF CLK
CAN CLK
IC305(DSP μ COM)
SW3V
SELECT SW
AUTO/MANUAL/AE
AE LOCK
FULL AUTO
AF/MF
MENU
AWB
MENU SEL1
MENU SET
MENU SELO
MF SENSOR
Q710
Q711
IC311
IC312
MFL1
MFL2
IC510(E²PROM)
CAM 3V
VCC
CLK
DI
RST
DO
CS
GND
R/B
E2 CLK
E2 DATA OUT
E2 DATA IN
E2 CS
E2 RB
IC507(D/A)
TO IC504 (PRE PROCESS)
DATA
LD
DAC LD
TO IC2001 (CONTROL μ CON)
VTRCLK
VTRD0
VTRD1
VIV2
DSC1
DSC2
X301
RESET
IC301-1
AWT L1
TD AWT
BEND
FRON AWT SENSOR
IC509
AWT R/G
AWT B/G
CLK CNT
MCLK
CW
ENAB
LED
ZABS
IC701(AF DSP)
IC702(AF DRIVE)
DAOUT
DRIVE
FCA
FCB
F2C
MOD
MIX
LPF
SIG
COMPC
+B
PB1
PB2
MA1
MA2
Q703
FOCUS MOTOR
LENS U
F. LENS
Z. LENS
MAGNET
MR
MRA
MRB
ENC
ZOOM MOTOR
IC703(ZOOM DRIVE)
CKI
CW/CCW
ENABLE
ØA
ØB
QR303
FP305
FP301
PP301
FP3501
PP501
FP4801
FP4001
PS3002
FP304
FP401

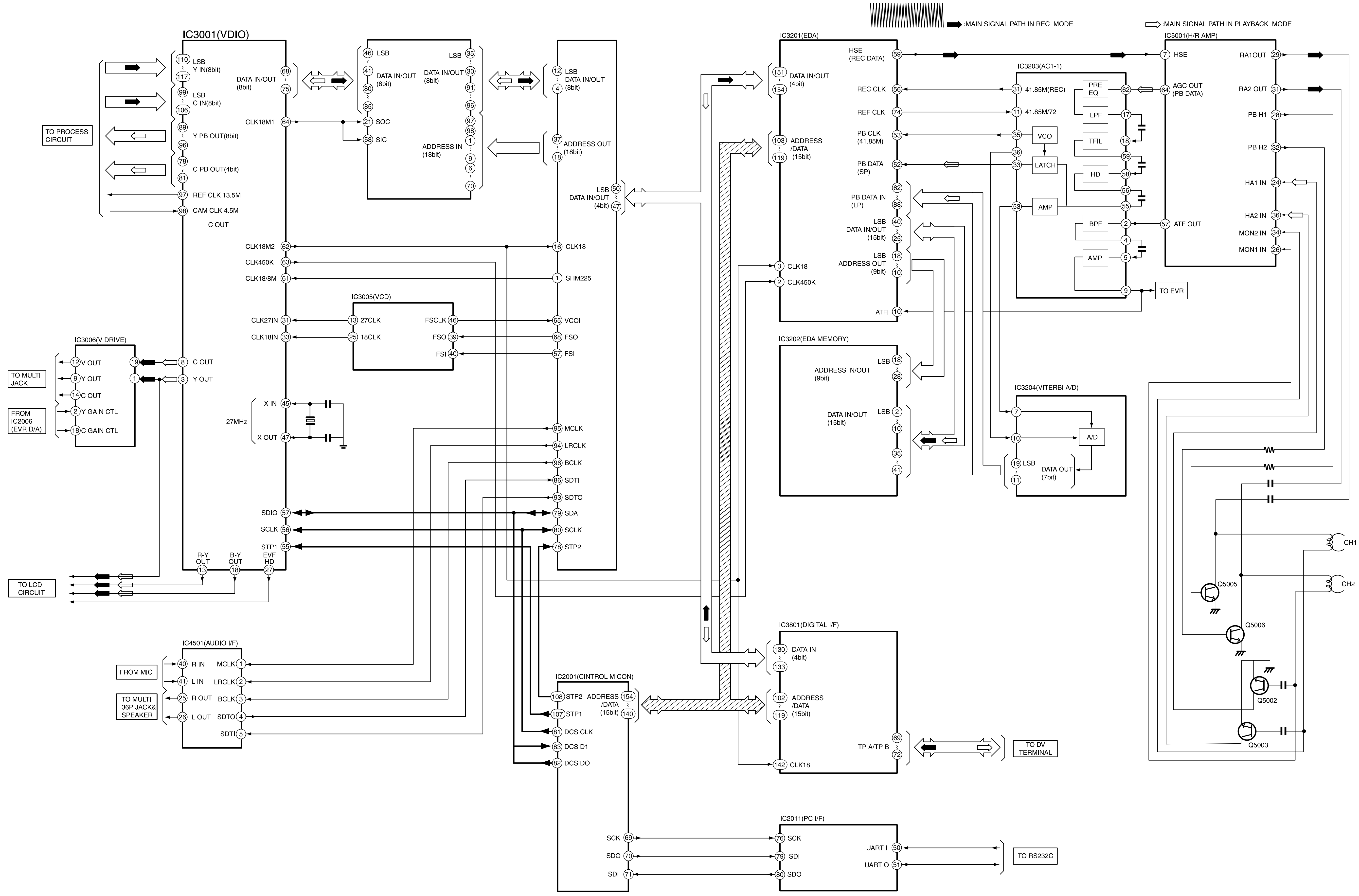
CCD DRIVE BLOCK DIAGRAM


IC107(PULSE GEN)
CCD FLEXIBLE CARD
IC107(V.DRIVER(G))
INPUT I/F
CH1 G
CH2 G
VH
VHH
VL
CAM15V
CAM-8V
V1 G
V2 G
V3 G
V4 G
SUB
15V
-8V
V1(G)
V2(G)
V3(G)
V4(G)
V SUB(G)
PS201
PP101
G CCD
R CCD
B CCD
LENS UNIT
LIGHT
3CCD METHOD
IC109
H2(G)
H1(G)
H1(R)
H2(R)
H1(B)
H2(B)
R
IC112
IC108(V.DRIVER(R,B))
V1(R,B)
V2(R,B)
V3(R,B)
V4(R,B)
V SUB(R)
V SUB(B)
V1 R,B
V2 R,B
V13 R,B
V4 R,B
CH1 R,B
CH2 R,B
V.OUT(G)
V.OUT(R)
V.OUT(B)
DS1
CI
CD
DS2
1/2
OR
X101
DSC
(22.5MHz)
IC110
2FCKO
2FCK
FP501
FP301
TO PROCESS
IC111
FCKO
FCK
HIGH SPEED PULSE DECODER
ELECTRIC SHUTTER SUB ULSE CONTROL
SERIAL DATA IN
CLR FROM IC2001
CLR FROM IC302
DATA FROM IC302
FROM CONTROL
FROM PROCESS
CH PULSE DECODER
V PULSE DECODER
PBLK
CPOB
CP1
CP2
CP3
PROCESS PULSE DECODER
V TIMING
HD LATCH
VD LATCH
HD FROM IC302
VD FROM IC302
HCLR GEN
H TIMING
IC506
CL501
B-CCD OUT
S/H
(G)
FL503
LPF
Q503
+5V
IC504(1/3)
PRE-BLK
AWB
AGC
CP
1.8V
Y-CORRECTION
FL505
AD
G OUT
AWB OUT(B)
AGC OUT(B)
TO EVR JIGU
IC507(1/6)
S-PED-B
PED-B
AD-G
AGC-G
IC503
CL502
(B)
FL502
Q502
FL506
R OUT
S-PED-R
PED-R
S-AWB-R
AWB-R
AD-R
AGC-R
IC502
CL503
FL501
Q501
FL504
B OUT
S-AWB-B
AWB-B
AD-B
AGC-B

BLK-5

BLK-6

VIDEO BLOCK DIAGRAM


:MAIN SIGNAL PATH IN REC MODE
:MAIN SIGNAL PATH IN PLAYBACK MODE
IC3001(VDIO)
LSB Y IN(8bit)
LSB C IN(8bit)
Y PB OUT(8bit)
C PB OUT(4bit)
REF CLK 13.5M
CAM CLK 4.5M
C OUT
DATA IN/OUT (8bit)
CLK18M1
CLK18M2
CLK450K
CLK18/8M
CLK27IN
CLK18IN
X IN
X OUT
27MHz
SDIO
SCLK
STP1
R-Y OUT
B-Y OUT
EVF HD
C OUT
Y OUT
TO PROCESS CIRCUIT
IC3006(V DRIVE)
V OUT
Y OUT
C OUT
Y GAIN CTL
C GAIN CTL
TO MULTI JACK
FROM IC2006 (EVR D/A)
TO LCD CIRCUIT
SOC
SIC
DATA IN/OUT (8bit)
ADDRESS IN (18bit)
LSB
DATA IN/OUT (8bit)
ADDRESS OUT (18bit)
DATA IN/OUT (4bit)
CLK18
SHM225
IC3005(VCD)
27CLK
18CLK
FSCLK
FSO
FSI
VCOI
MCLK
LRCLK
BCLK
SDTI
SDTO
SDA
SCLK
STP2
IC4501(AUDIO I/F)
R IN
L IN
R OUT
L OUT
MCLK
LRCLK
BCLK
SDTO
SDTI
FROM MIC
TO MULTI 36P JACK& SPEAKER
IC2001(CINTROL MICON)
STP2
STP1
DCS CLK
DCS D1
DCS DO
ADDRESS /DATA (15bit)
SCK
SDO
SDI
IC3201(EDA)
HSE (REC DATA)
DATA IN/OUT (4bit)
REC CLK
REF CLK
ADDRESS /DATA (15bit)
PB CLK (41.85M)
PB DATA (SP)
PB DATA IN (LP)
LSB DATA IN/OUT (15bit)
LSB ADDRESS OUT (9bit)
CLK18
CLK450K
ATFI
IC3202(EDA MEMORY)
ADDRESS IN/OUT (9bit)
DATA IN/OUT (15bit)
IC3203(AC1-1)
41.85M(REC)
41.85M/72
PRE EQ
LPF
VCO
TFIL
LATCH
HD
AMP
BPF
AMP
TO EVR
IC3204(VITERBI A/D)
A/D
LSB
DATA OUT (7bit)
IC5001(H/R AMP)
HSE
AGC OUT (PB DATA)
ATF OUT
RA1OUT
RA2 OUT
PB H1
PB H2
HA1 IN
HA2 IN
MON2 IN
MON1 IN
CH1
CH2
Q5005
Q5006
Q5002
Q5003
IC3801(DIGITAL I/F)
DATA IN (4bit)
ADDRESS /DATA (15bit)
TP A/TP B
CLK18
TO DV TERMINAL
IC2011(PC I/F)
SCK
SDI
SDO
UART I
UART O
TO RS232C

ELECTRICAL ADJUSTMENT PROCEDURES

1. PREPARATION

To perform electrical adjustments completely, the following measuring equipment is required.

1-1. Measuring Equipment

Dual-Trace Oscilloscope	**Specification**
Voltage Range	0.001 to 50V/Div.
Frequency Range	DC to 100MHz
Probes	10:1, 1:1
DVM (Digital Volt Meter)	
Frequency Counter	
Frequency Range	0 to 150MHz

Fig.E1

1-2. Servicing Fixtures and Tools

Please refer to 4-1. In section 2.

1-3. Adjustment System

For performing the electrical adjustment, the following adjustment system is required.

The measuring board (VFK1308P) as shown in figure E2 has 2 types of RS-232C connectors 9pin D-sub connector and M3 RS-232C connector.

A) 9 Pin RS-232C D-sub Connector

If an ordinary 9-pin RS-232C cross cable is available, connect it between the measuring board and personal computer as shown in figure E2.

B) M3 RS-232C Connector

Also M3 RS-232C cable can be used instead of ordinary 9-pin RS-232C cross cable.

The part number of M3 RS-232C cable is VFK1395.

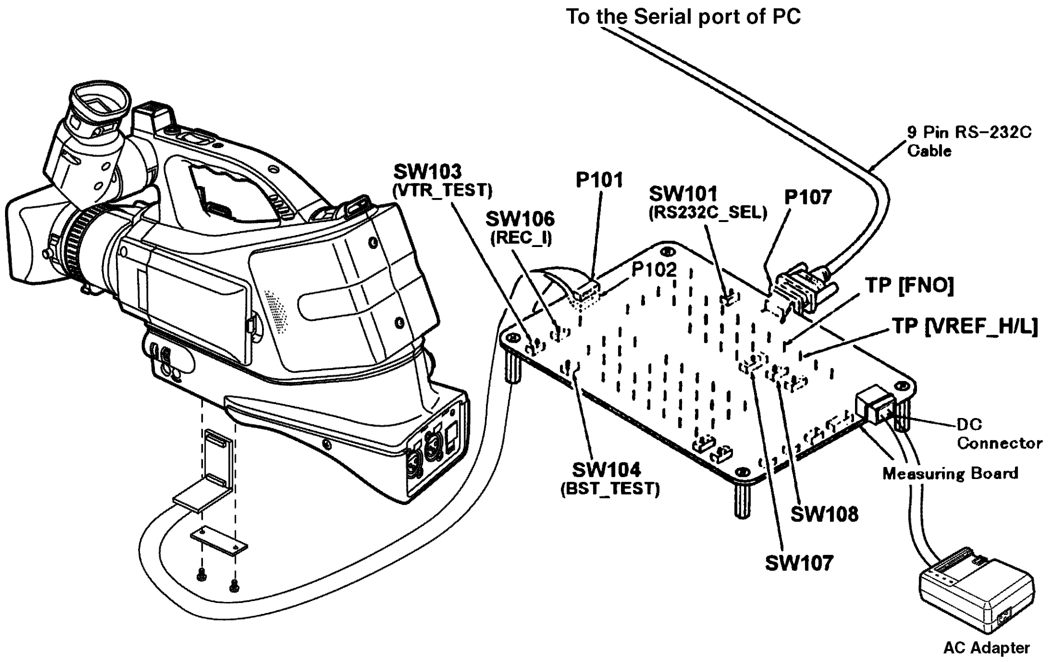

To the Serial port of PC
9 Pin RS-232C Cable
SW103 (VTR_TEST)
P101
SW101 (RS232C_SEL)
P107
SW106 (REC_I)
P102
TP [FNO]
TP [VREF_H/L]
DC Connector
Measuring Board
SW104 (BST_TEST)
SW108
SW107
AC Adapter

Fig.E2

1-4. System Hook up Procedures

1. Unscrew 2 screws and remove the EVR cover.

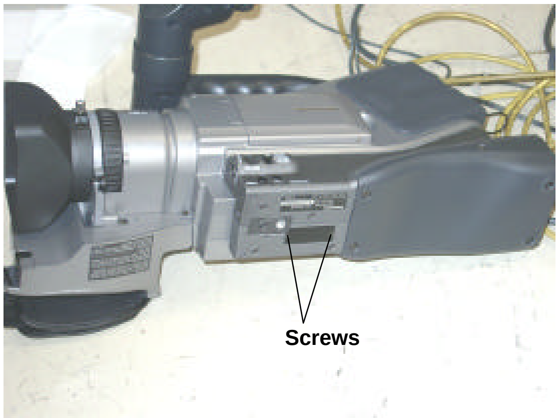


Fig.E3

2. Connect the 2 pcs. of 30 pin flat cables between P101/P102 on the Measuring Board, and 2 connectors on the Connector Board. Make sure that the contact surface of 2 pcs. of 30 pin Flat Cables are inner side and direction of the Connection Board is as shown in Figures E4. Then connect the Extension board.

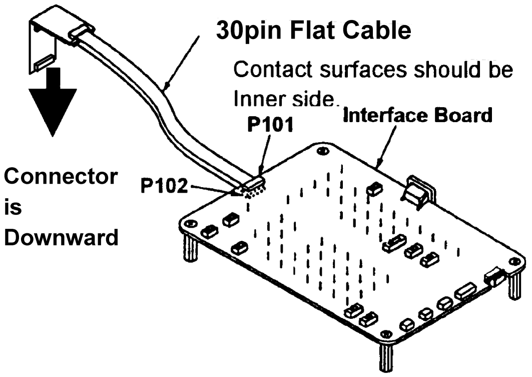


Fig.E4

3. Set the Connector Board with the 30 pin Cables to the unit as shown in Figure E5. Make sure that the direction of the Connection Board is correct as shown in Figure E5.

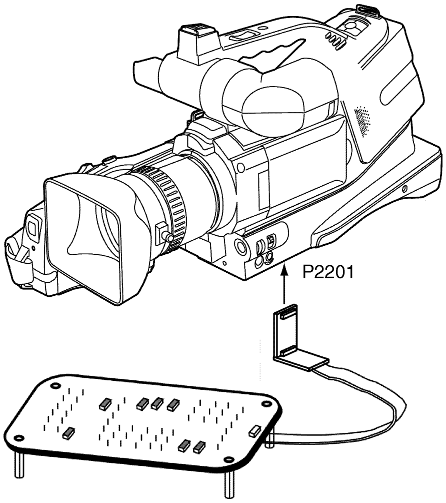


Fig.E5

4. Connect the AC adapter or set the Battery to the unit.
5. Connect a 9 pin RS-232C cable between the Measuring Board and RS-232C connector on Personal Computer as shown in Figure E2.
6. Supply DC6V to the Measuring Board (VFK1308P).
7. Unless otherwise specified on the message of the EVR software, set the switches on the Measuring Board as shown in the table below.

SW REF.	NAME OF SW	SETTING POSITION
SW101	RS-232 Select	It is depend on the type of the cable between the measuring board and PC. *Ordinary 9pin RS-232C Cross Cable: D-SUB Position *M4 RS-232C Cable: M3 Position
SW103	VTR Test	L Position
SW104	BST Test	NORMAL Position
SW106	REC I	OFF Position
SW107		CENTERT Position

Fig.E6

Using halogen lamps in the camera room.

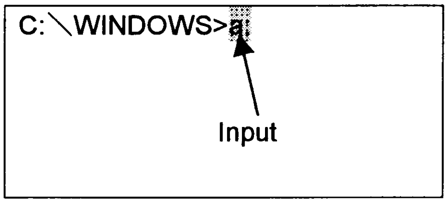
The camera adjustments should be performed under the following lighting condition.

Color Temperature :3100K°
Lumination :1400Lux

2. PC EVR (ADJUSTMENT) SOFTWARE

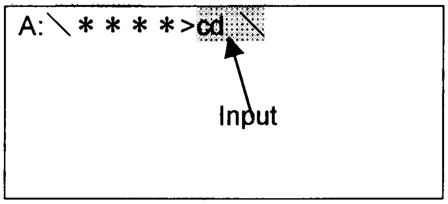
2-1. BOOT UP THE ADJUSTMENT SOFTWARE

1. At the first, copy the EVR software from floppy disc (VFK1694) to the HDD in your Personal Computer (PC).
2. Power ON the PC.
3. Restart the PC in DOS mode.
4. Boot up the EVR program as the following steps.
   1) Type “a:” and then press the “ENTER” key.
   C:¥WINDOWS>a:



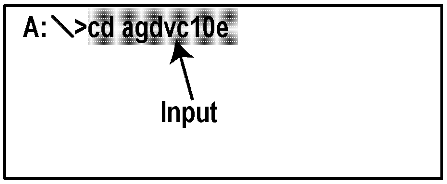
```
C:＼WINDOWS>a:
```

   2) Type “cd ＼” and then press the “ENTER” key.



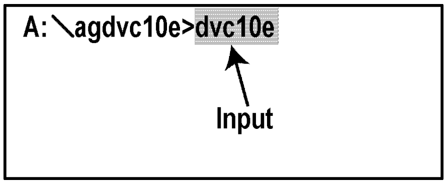
```
A:＼＊＊＊＊>cd ＼
```

   3) Type the “cd agdvc10e” and press the “ENTER” key.



```
A:＼>cd agdvc10e
```

   4) Type the “dvc10e” and then press the “ENTER” key.



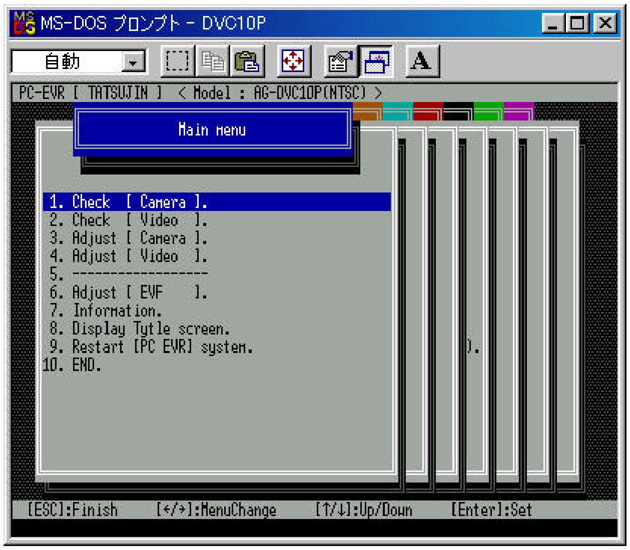
```
A:＼agdvc10e>dvc10e
```

   5) Wait for a few seconds so that the EVR adjustment program is started.
   6) For the adjustments, follow the program display.

2-2. How to Use the Main Menu

Select a Sub Menu to check, adjust the unit and etc. by pressing ↑↓ (UP/DOWN) Key in Main Menu. Then press “ENTER” Key. the Sub Menu will be displayed.

Note: Menu (pages) 3,4 and 5 are needed for adjustment.
The menu (page) 5 is not available for AG-DVC10 because it has no LCD monitor.

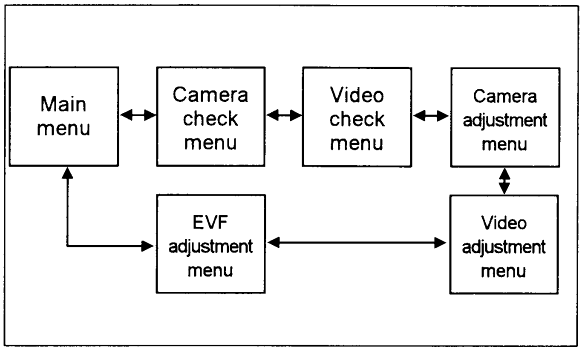


MS-DOS プロンプト - DVC10P
自動
A

```
PC-EVR [ TATSUJIN ]  < Model : AG-DVC10P(NTSC) >

                Main menu

 1. Check  [ Camera ].
 2. Check  [ Video  ].
 3. Adjust [ Camera ].
 4. Adjust [ Video  ].
 5. -----------------
 6. Adjust [ EVF    ].
 7. Information.
 8. Display Tytle screen.
 9. Restart [PC EVR] system.
10. END.

 [ESC]:Finish    [←/→]:MenuChange    [↑/↓]:Up/Down    [Enter]:Set
```

Fig.E7

With using ←→ keys, also the menu can be changed.

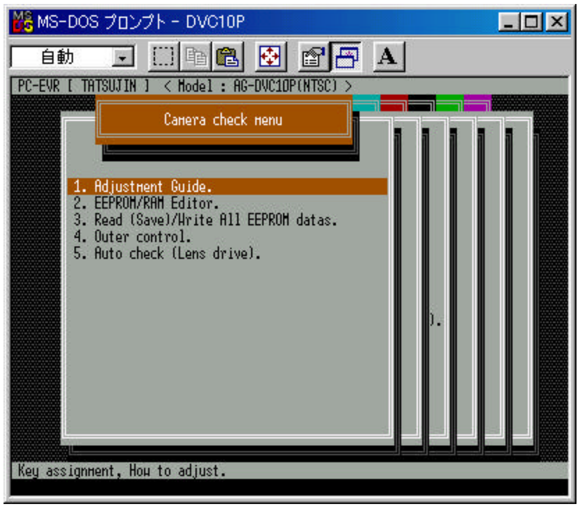


Main menu
Camera check menu
Video check menu
Camera adjustment menu
EVF adjustment menu
Video adjustment menu

Fig.E8

2-3. Introduction of the Sub Menu

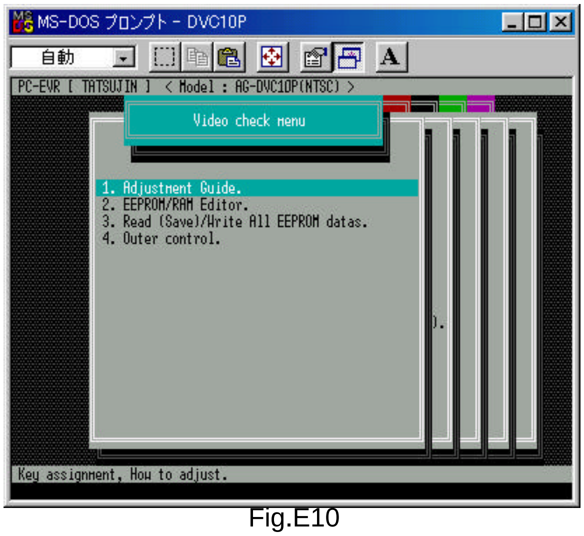
1) Camera Check Menu



```
PC-EVR [ TATSUJIN ]  < Model : AG-DVC10P(NTSC) >
              Camera check menu

1. Adjustment Guide.
2. EEPROM/RAM Editor.
3. Read (Save)/Write All EEPROM datas.
4. Outer control.
5. Auto check (Lens drive).

Key assignment, How to adjust.
```

Fig.E9

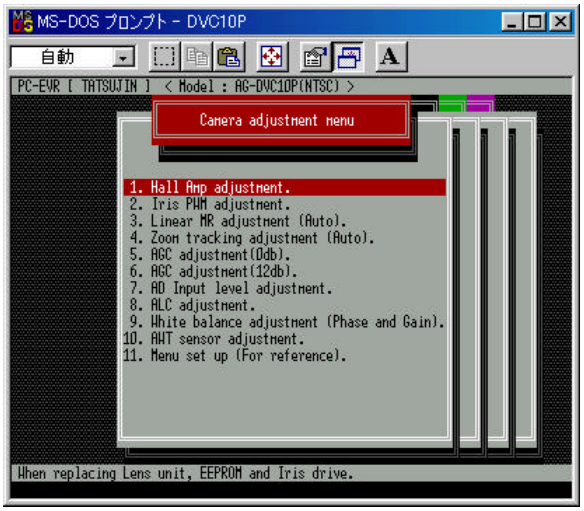
2) Video Check Menu



```
PC-EVR [ TATSUJIN ]  < Model : AG-DVC10P(NTSC) >
              Video check menu

1. Adjustment Guide.
2. EEPROM/RAM Editor.
3. Read (Save)/Write All EEPROM datas.
4. Outer control.

Key assignment, How to adjust.
```

Fig.E10

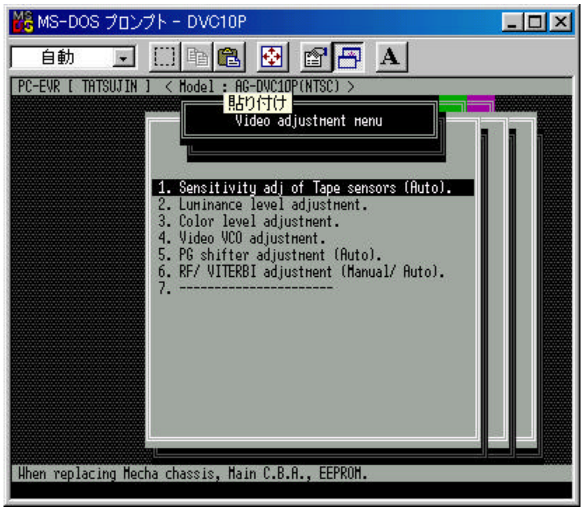
3) Camera Adjustment Menu



```
PC-EVR [ TATSUJIN ]  < Model : AG-DVC10P(NTSC) >
              Camera adjustment menu

 1. Hall Amp adjustment.
 2. Iris PWM adjustment.
 3. Linear MR adjustment (Auto).
 4. Zoom tracking adjustment (Auto).
 5. AGC adjustment(0db).
 6. AGC adjustment(12db).
 7. AD Input level adjustment.
 8. ALC adjustment.
 9. White balance adjustment (Phase and Gain).
10. AWT sensor adjustment.
11. Menu set up (For reference).

When replacing Lens unit, EEPROM and Iris drive.
```

Fig.E11

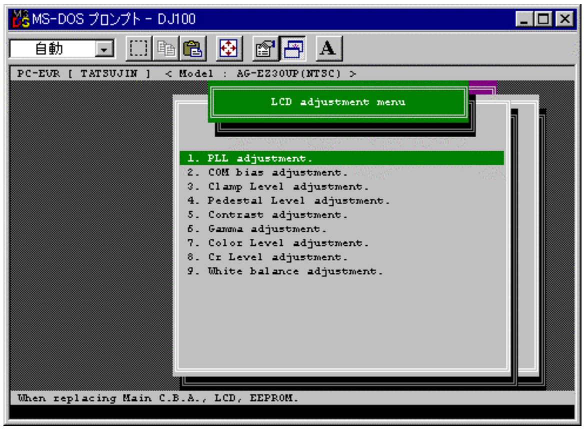
4) Video Adjustment Menu



```
PC-EVR [ TATSUJIN ]  < Model : AG-DVC10P(NTSC) >
              Video adjustment menu

1. Sensitivity adj of Tape sensors (Auto).
2. Luminance level adjustment.
3. Color level adjustment.
4. Video VCO adjustment.
5. PG shifter adjustment (Auto).
6. RF/ VITERBI adjustment (Manual/ Auto).
7. ----------------------

When replacing Mecha chassis, Main C.B.A., EEPROM.
```

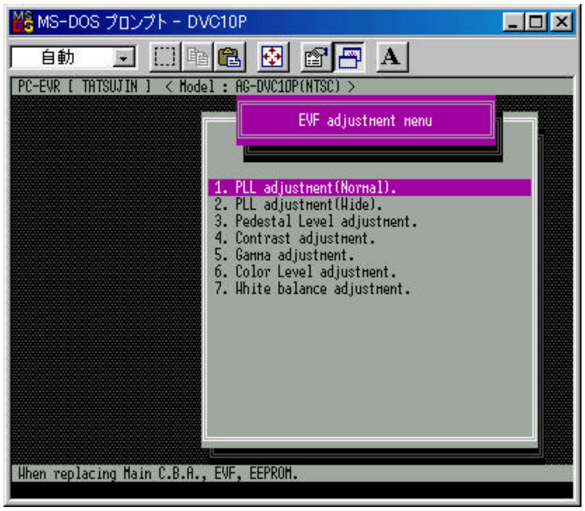
Fig.E12

5) LCD Adjustment Menu



```
PC-EVR [ TATSUJIN ]  < Model : AG-EZ30UP(NTSC) >
              LCD adjustment menu

1. PLL adjustment.
2. COM bias adjustment.
3. Clamp Level adjustment.
4. Pedestal Level adjustment.
5. Contrast adjustment.
6. Gamma adjustment.
7. Color Level adjustment.
8. Cr Level adjustment.
9. White balance adjustment.

When replacing Main C.B.A., LCD, EEPROM.
```

6) EVF Adjustment Menu



```
PC-EVR [ TATSUJIN ]  < Model : AG-DVC10P(NTSC) >
              EVF adjustment menu

1. PLL adjustment(Normal).
2. PLL adjustment(Wide).
3. Pedestal Level adjustment.
4. Contrast adjustment.
5. Gamma adjustment.
6. Color Level adjustment.
7. White balance adjustment.

When replacing Main C.B.A., EVF, EEPROM.
```

Fig.E13

2-4. Restoration of Connecting Error

This program checks connecting condition with this Unit all the time.

When the power of this Unit is turned off, VTR is reset, or cable is disconnected during servicing, restart the program by pressing “CTRL” key and “BREAK” key Simu Hq neously

2-5. Waveform Illustration

This program displays the waveform illustration, when the “F2” key is pressed in the adjustment mode.

3. EEPROM

All adjustment data has been stored in the EEPROM.

There are two EEPROM in this unit as shown in the table below.

EEPROM LOCATION

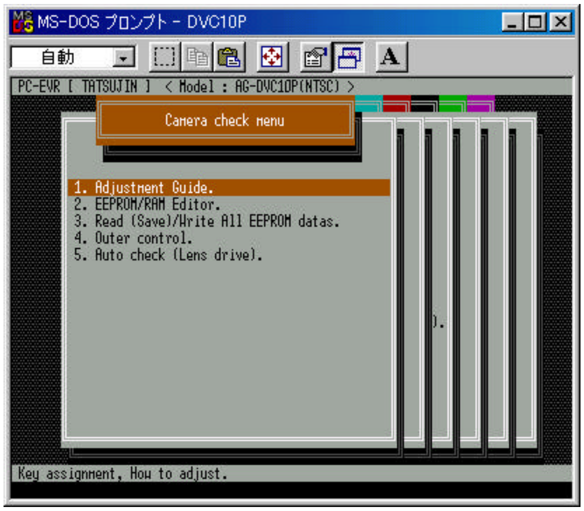
C.B.A.	EEPROM IC Ref.No.
Camera Main C.B.A.	IC501
VTR Main C.B.A.	IC2005

(Note)

Be sure to save both the EEPROM data into the personal computer before performing service and adjustment; in order to avoid any accidental data loss.

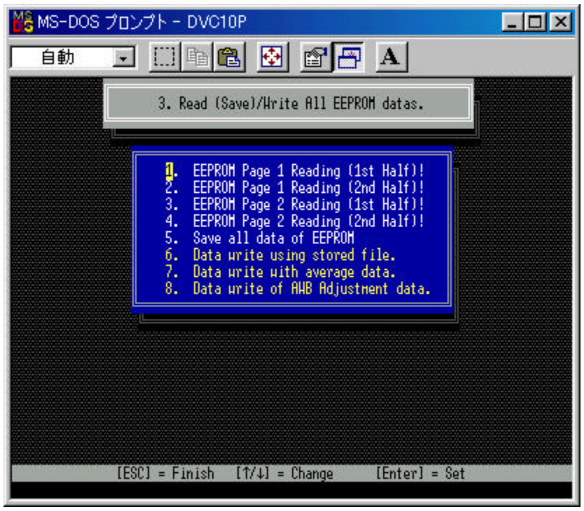
3-1. How to Save Camera EEPROM Data

1) Select “1.Check [Camera].” In the Main menu, and then press the “Enter” key.
2) Select “3.Read [Save]/Write All EEPROM data” in the Camera check menu, and then press the “Enter” key.



```
PC-EVR [ TATSUJIN ]  < Model : AG-DVC10P(NTSC) >
Camera check menu
1. Adjustment Guide.
2. EEPROM/RAM Editor.
3. Read (Save)/Write All EEPROM datas.
4. Outer control.
5. Auto check (Lens drive).
Key assignment, How to adjust.
```

3) Select “5.Save all data of EEPROM” in Read [Save]/Write All EEPROM data menu, and then press the “Enter” key.

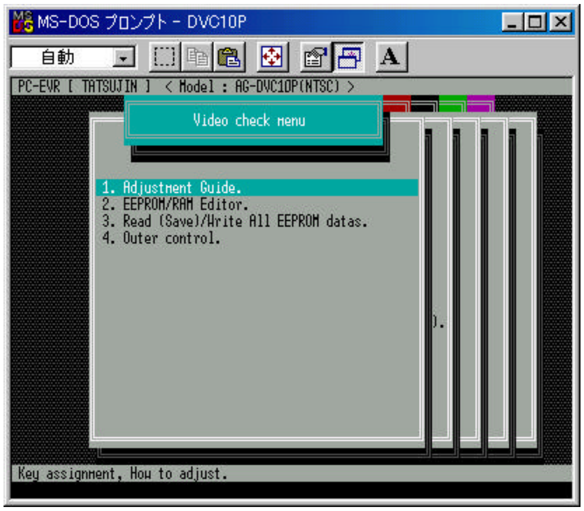


```
3. Read (Save)/Write All EEPROM datas.
1.  EEPROM Page 1 Reading (1st Half)!
2.  EEPROM Page 1 Reading (2nd Half)!
3.  EEPROM Page 2 Reading (1st Half)!
4.  EEPROM Page 2 Reading (2nd Half)!
5.  Save all data of EEPROM
6.  Data write using stored file.
7.  Data write with average data.
8.  Data write of AWB Adjustment data.
[ESC] = Finish   [↑/↓] = Change      [Enter] = Set
```

4) Type the File name and, then press the “Enter” key. The data of EEPROM (IC501) can be stored in the personal computer.

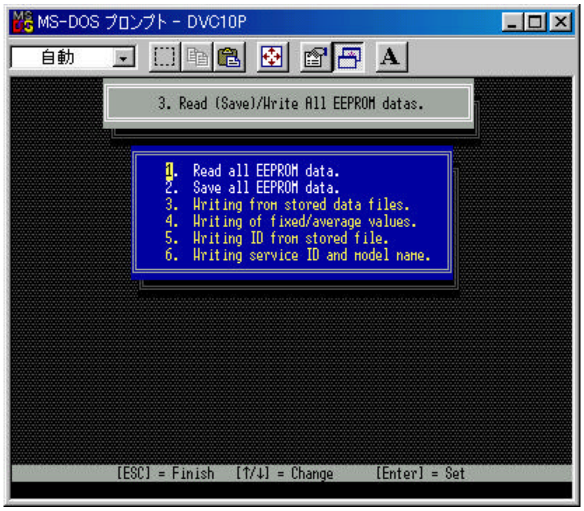
3-2. How to Save VTR Main EEPROM Data

1) Select “2.Check [Video].” In the Main menu, and then press the “Enter” key.
2) Select “3.Read [Save]/Write All EEPROM data” in the Video check menu, and then press the “Enter” key.



```
PC-EVR [ TATSUJIN ]  < Model : AG-DVC10P(NTSC) >
Video check menu
1. Adjustment Guide.
2. EEPROM/RAM Editor.
3. Read (Save)/Write All EEPROM datas.
4. Outer control.
Key assignment, How to adjust.
```

3) Select “2.Save all data of EEPROM data” in Read [Save]/Write All EEPROM data menu, and then press the “Enter” key.



```
3. Read (Save)/Write All EEPROM datas.

1. Read all EEPROM data.
2. Save all EEPROM data.
3. Writing from stored data files.
4. Writing of fixed/average values.
5. Writing ID from stored file.
6. Writing service ID and model name.

[ESC] = Finish   [↑/↓] = Change      [Enter] = Set
```

4) Type the File name, and then press the “Enter” key. The data of EEPROM (IC2005) will be stored in the personal computer.

3-3. REWRITE Saved Data

When it becomes impossible to adjust during service adjustment or the Camera Main on VTR Main C.B.A. is replaced, rewrite the saved data which is stored in EEPROM as follows. And readjust.

3-4. How to Rewrite Camera Main C.B.A. Saved Data

1) Select “1.Check [Camera].” In the Main menu, and then press the “Enter” key.
2) Select “3.Read [Save]/Write All EEPROM data” in the Camera check menu, and then press the “Enter” key.
3) Select “6.Data write using stored file” in Read [Save]/Write All EEPROM data menu, and then press the “Enter” key.
4) Type the saved file name, and then press the “Enter” key.
5) The data can be written in EEPROM (IC501).

3-5. How to Rewrite Video C.B.A. Saved Data

1) Select “2.Check [Video].” In the Main menu, and then press the “Enter” key.
2) Select “3.Read [Save]/Write All EEPROM data” in the Video check menu, and then press the “Enter” key.
3) Select “3.Writing from the stored data files” in the Read [Save]/Write All EEPROM data menu, and then press “Enter” key.
4) Type the saved file name, and then press the “Enter” key.
5) The data can be written in EEPROM (IC2005).

4. C.B.A. REPLACEMENT

4-1. How to Input ID Number

Save the data to the EEPROM (IC2005) after replacing VTR Main C.B.A.

1) Select “2.Check [Video].” In the Main menu, and then press the “Enter” key.
2) Select “3.Read [Save]/Write All EEPROM data” in the Video check menu, and then press the “Enter” key.
3) Select “5.Writing ID from the stored file.” In Read [Save]/Write All EEPROM data menu, and then press the “Enter” key. Type the saved file name, and then press the “Enter” key. The ID Number will be written automatically.

Note: The adjusted data has been saved in the EEPROM after each adjustments.

5. CAMERA ADJUSTMENT PROCEDURE

Be sure to save the Camera EEPROM data into the Personal Computer, before performing adjustment.

Perform the all PC-EVR adjustments, by referring to procedures on PC screen.

5-1. Hall Amp Adjustment

(Preparation)

1) Connect the Digital Volt Meter to “VREF-H/L” on the VFK1308P.
2) Set SW108 to “L” side and measure voltage.
3) Set low reference voltage on the PC-EVR screen by up or down keys.
4) Set SW108 to “H” side and measure voltage.
5) Set high reference voltage on the PC-EVR screen by up or down keys.

(Adjustment-Offset)

1) Connect the Digital Volt Meter to “FNO” on the VFK1308P.
2) Set SW107 to “CLOSE” side.
3) Adjust voltage to be in the specification as shown on screen.

(Adjustment-Gain)

1) Set SW107 to “OPEN” side.
2) Adjust voltage to be in the specification as shown on screen.

5-2. Iris PWM Adjustment

1) Set SW107 to “CENTER” position and automatically open the Iris.
2) Connect the Digital Volt Meter to “FNO” on the VFK1308P.
3) Adjust voltage to be in the specification as shown on in screen.

Note : Adjustment should be done from lower voltage to higher voltage.

5-3. Linear MR Adjustment

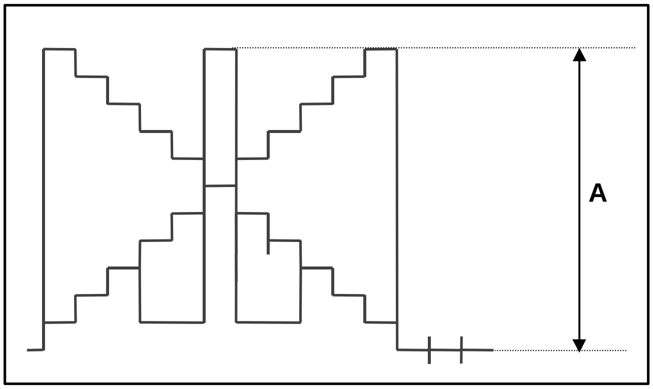
This adjustment is performed automatically.

5-4. Zoom Tracking Adjustment

1) Set the Collimator (VFK1164TCM01) on the front of the Lens with the 43mm attachment ring (VFK1164TAR44).
2) Set the Tracking chart (hunting chart) on the front of the Collimator. It is included in the VFK1164TCM01.
3) Under the Halogen lamp condition, turn the camcorder to dark place (Need to have an Approx.0.2 lux condition).
4) Adjustment is performed automatically.
5) After complete adjustment, confirm that it is in focus at both the telephoto and wide-angle positions during zoom operations.

5-5. AGC 0dB Adjustment

1) Connect the oscilloscope to “CDS/AGC” on the VFK1308P.
2) Aim the unit at Gray Scale chart under the halogen lamp condition (3100K, 1400Lux).
3) Set the Iris position by arrow keys so that the signal level (A) becomes 300mV±20mVp-p.



Note : Press the F2 key to see figure.

4) Connect the oscilloscope to “ADIN” on the VFK1308P.
5) Adjust the signal level (A) to become 300mV±20mVp-p.
6) Follow the message on the screen and adjust R channel and B channel.

Note : Press the F2 key to see figure.

5-6. AGC 12dB Adjustment

1) Connect the oscilloscope to “CDS/AGC” on the VFK1308P.
2) Aim the unit at Gray Scale chart under the halogen lamp condition (3100K, 1400Lux).
3) Set the Iris position by arrow keys so that the signal level (A) becomes 1200mV±40mVp-p.

Note : Press the F2 key to see figure.

4) Connect the oscilloscope to “ADIN” on the VFK1308P.
5) Adjust the signal level (A) to become 1200mV±40mVp-p.
6) Follow the message on the screen and adjust R channel and B channel.

Note : Press the F2 key to see figure.

5-7. AD Input Level Adjustment

1) Connect the oscilloscope to “CDS/AGC” on the VFK1308P.
2) Aim the unit at Gray Scale chart under the halogen lamp condition (3100K, 1400Lux).
3) Set the Iris position by arrow keys so that the signal level (A) becomes 1230mV±20mVp-p.

Note : Press the F2 key to see figure.

4) Connect the oscilloscope to “ADIN” on the VFK1308P.
5) Adjust the signal level (A) to become 1230mV±20mVp-p.
6) Follow the message on the screen and adjust R channel and B channel.

Note : Press the F2 key to see figure.

5-8. ALC Adjustment

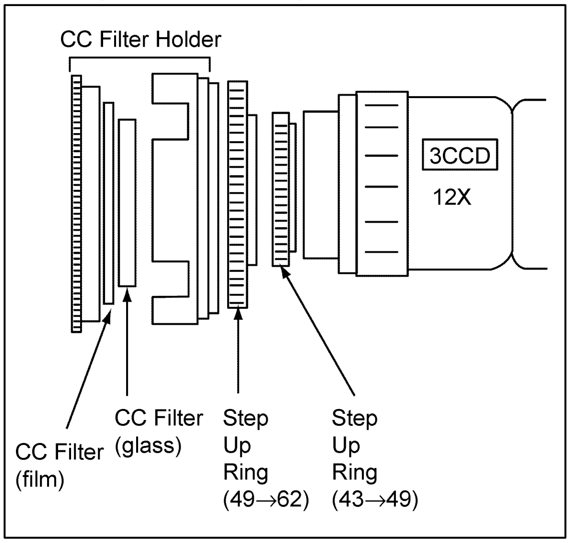
1) Connect the oscilloscope to “ADIN” on the VFK1308P.
2) Aim the unit at Gray Scale chart under the Halogen lamp condition (3100K, 1400Lux).
3) Adjust the signal level (A) becomes 1270mV±20mV.

Note : Press the F2 key to see figure.

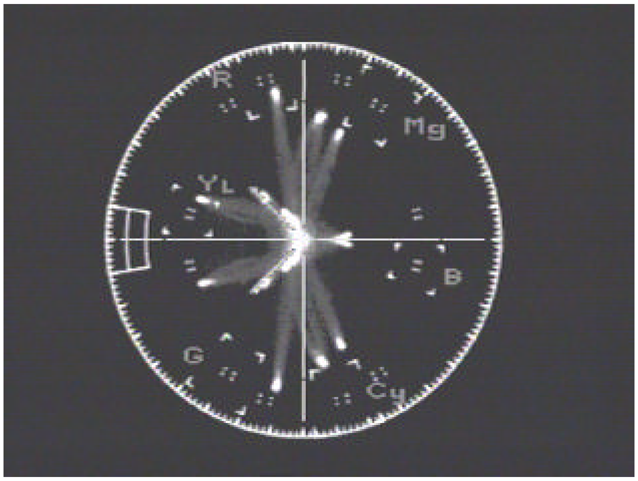
5-9. White Balance Adjustment

5-9-1. Indoor (3100K)WB Adjustment

1) Aim the unit at White Chart under the Halogen lamp condition (3100K, 1400Lux).

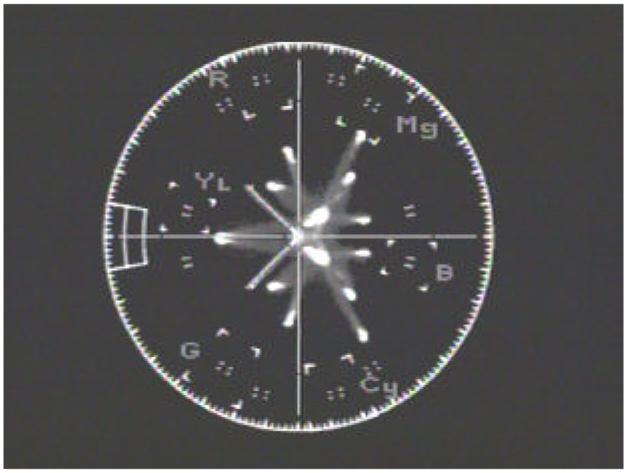


2) Set the Color Conversion filters (LB80 : VFK1342, LBA8 : VFK1696) on the front of lens with CC Filter holder (VFK1345) and the two Step Up Rings (VFK1659, VFK1660)
3) White balance adjustment is performed automatically.
4) Aim the unit at Color Chip Chart (YWV2100RB98).
5) Adjust R/G Gain, R/G Phase, B/G Gain and B/G Phase manually so that the Red and Yellow vector position becomes same as the standard vector figure as follows.



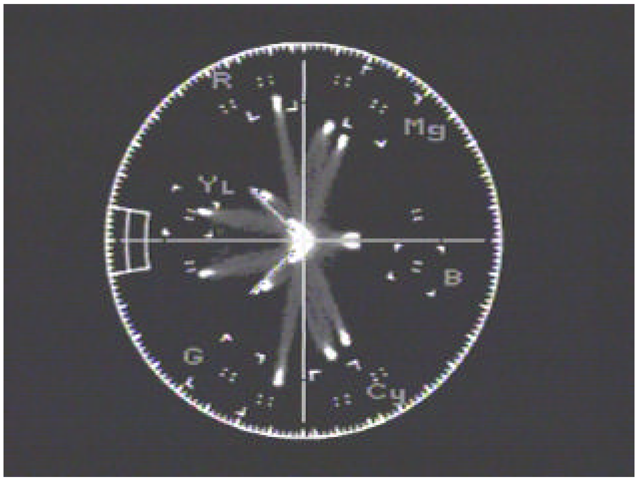
5-9-2. Outdoor (5100K)WB Adjustment

1) Set the Color Conversion filters (LB120:VFK1347, LBB4 : VFK1697) on the front of lens with CC Filter holder (VFK1345) and the two Step Up Rings (VFK1659, VFK1660).
2) White balance adjustment is performed automatically.
3) Aim the Color Chip Chart (YWV2100RB98).
4) Adjust R/G Gain, R/G Phase, B/G Gain and B/G Phase manually so that the Red and Yellow vector position becomes same as the standard vector figure as follows.



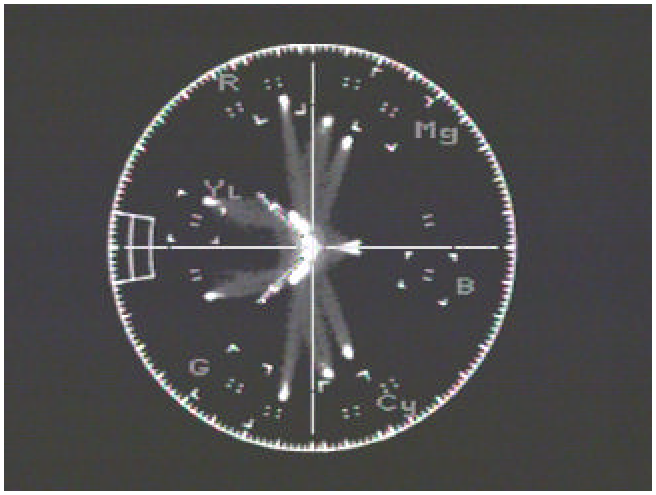
5-9-3. Cool White (4500K)WB Adjustment

1) Set the Color Conversion filters (LB120:VFK1347, LBA8 : VFK1696) on the from of lens with CC Filter holder (VFK1345) and the two Step Up Rings (VFK1659, VFK1660).
2) White balance adjustment is performed automatically.
3) Aim the unit at Color Chip Chart (YWV2100RB98).
4) Adjust R/G Gain, R/G Phase, B/G Gain and B/G Phase manually so that the Red and Yellow vector position becomes same as the standard vector figure as follows.



5-9-4. Warm White (2800K)WB Adjustment

1) Set the Color Conversion filters (LB40:VFK1341, LBA4 : VFK1695) on the from of lens with CC Filter holder (VFK1345) and the two Step Up Rings (VFK1659, VFK1660).
2) White balance adjustment is performed automatically.
3) Aim the unit at Color Chip Chart (YWV2100RB98).
4) Adjust R/G Gain, R/G Phase, B/G Gain and B/G Phase manually so that the Red and Yellow vector position becomes same as the standard vector figure as follows.



5-9-5. Indoor WB Data Measurement

1) Aim the unit at White Chart under the Halogen lamp condition (3100K, 1400Lux) with CC Filters (LB80 : VFK1342, LBA8 : VFK1696).
2) White balance data measurement is preloaded automatically.

5-9-6. Outdoor WB Data Measurement

1) Aim the unit at White Chart under the Halogen lamp condition with CC Filters (LB120 : VFK1347, LBB4 : VFK1697).
2) White balance data measurement is preloaded automatically.

5-9-7. Cool WB Data Measurement

1) Aim the unit at White Chart under the Halogen lamp condition with CC Filters (LB120 : VFK1347, LBA8 : VFK1696).
2) White balance data measurement is preloaded automatically.

5-9-8. Warm WB Data Measurement

1) Aim the unit at White Chart under the Halogen lamp condition with CC Filters (LB40 : VFK1341, LBA4 : VFK1695).
2) White balance data measurement is preloaded automatically.

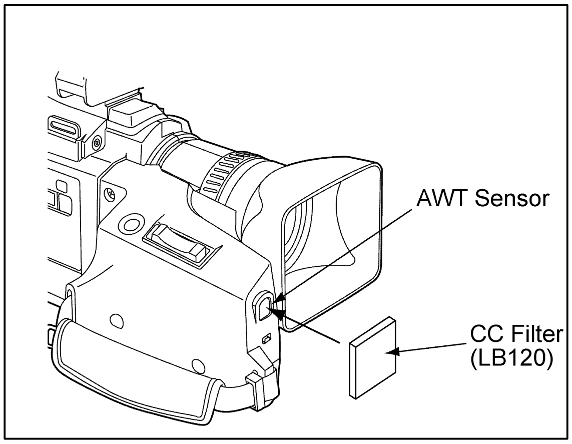
5-10. AWT Sensor Adjustment

5-10-1. AWT Sensor Offset Adjustment

1) Aim the unit at White Chart under the Halogen lamp condition without the CC Filter.
2) Adjustment is performed automatically.

5-10-2. AWT Sensor Normalize

1) Aim the unit at White Chart under the Halogen lamp condition.
2) Cover the CC Filter (LB120:VFK1347) on the front of the AWT Sensor.



3) Adjustment is performed automatically.

6. VIDEO ADJUSTMENT

6-1. Sensitivity Adjustment

1) Set the Camera/VCR switcher to “Camera” position.
2) Insert the Tape End/Beg. Sensor Cassette (VFK1217) into the Unit.
3) Press Enter key to perform adjustment automatically.

6-2. Luminance Level Adjustment

1) Connect the Oscilloscope to the Video Output with 75 ohm terminate.
2) Adjust the Y level to become 714±10mV as shown figure.

Note: Press the F2 Key to see figure.

6-3. Color Level Adjustment

1) Connect the Oscilloscope to the Video Output with 75 ohm terminate.
2) Adjust the Burst level to become 286±20mV as shown in figure.

Note: Press the F2 Key to see figure.

6-4. Video VCO Adjustment

1) Connect the Frequency counter to “VCO” on the VFK1308P.
2) Adjust the VCO frequency to become 41.85MHz±200KHz.

6-5. PG Shifter Adjustment

1) Insert the Color Bar Alignment tape (VFM3010EDS) into the Unit.
2) Adjustment is performed automatically.

6-6. RF.VITERBI Adjustment

1) Insert the self-recorded tape into the Unit.
2) Press TAB Key to start the Automatic adjustment.

7. EVF ADJUSTMENT

7-1. PLL Adjustment (Normal)

1) Connect the oscilloscope to “MON-PLL” on the VFK1308P.
2) Adjust the width (T) to become 1.8±0.1µsec as shown in figure when press the F2 Key.

7-2. PLL Adjustment (Wide)

1) Connect the oscilloscope to “MON-PLL” on the VFK1308P.
2) Adjust the width (T) to become 2.3±0.1µsec as shown in figure when press the F2 Key.

7-3. Pedestal Level Adjustment

1) Connect the oscilloscope to “MON-G” on the VFK1308P.
2) Adjust the pedestal level to become 4.1±0.1V as shown in figure when press the F2 Key.

7-4. Pedestal Level Adjustment

1) Connect the oscilloscope to “MON-G” on the VFK1308P.
2) Adjust level to become 3.4±0.1V as shown in figure when press the F2 Key.

7-5. Gamma Level Adjustment

1) Connect the oscilloscope to “MON-G” on the VFK1308P.
2) Adjust V level to become 2.1±0.1V as shown in figure when press the F2 Key.

7-6. Color Level Adjustment

1) Connect the oscilloscope to “MON-B” on the VFK1308P.
2) Adjust V level to become 0.4±0.1V as shown in figure when press the F2 Key.

7-7. White Balance Adjustment

1) Set the Lens Cap on front of the Lens.
2) Connect the Video out to the monitor TV.
3) Compare the white level between the EVF and the Monitor TV. If there is a big difference so that white level (Phase) becomes almost same.

1.MECHANICAL MAINTENANCE

1-1. Mechanical Parts Location

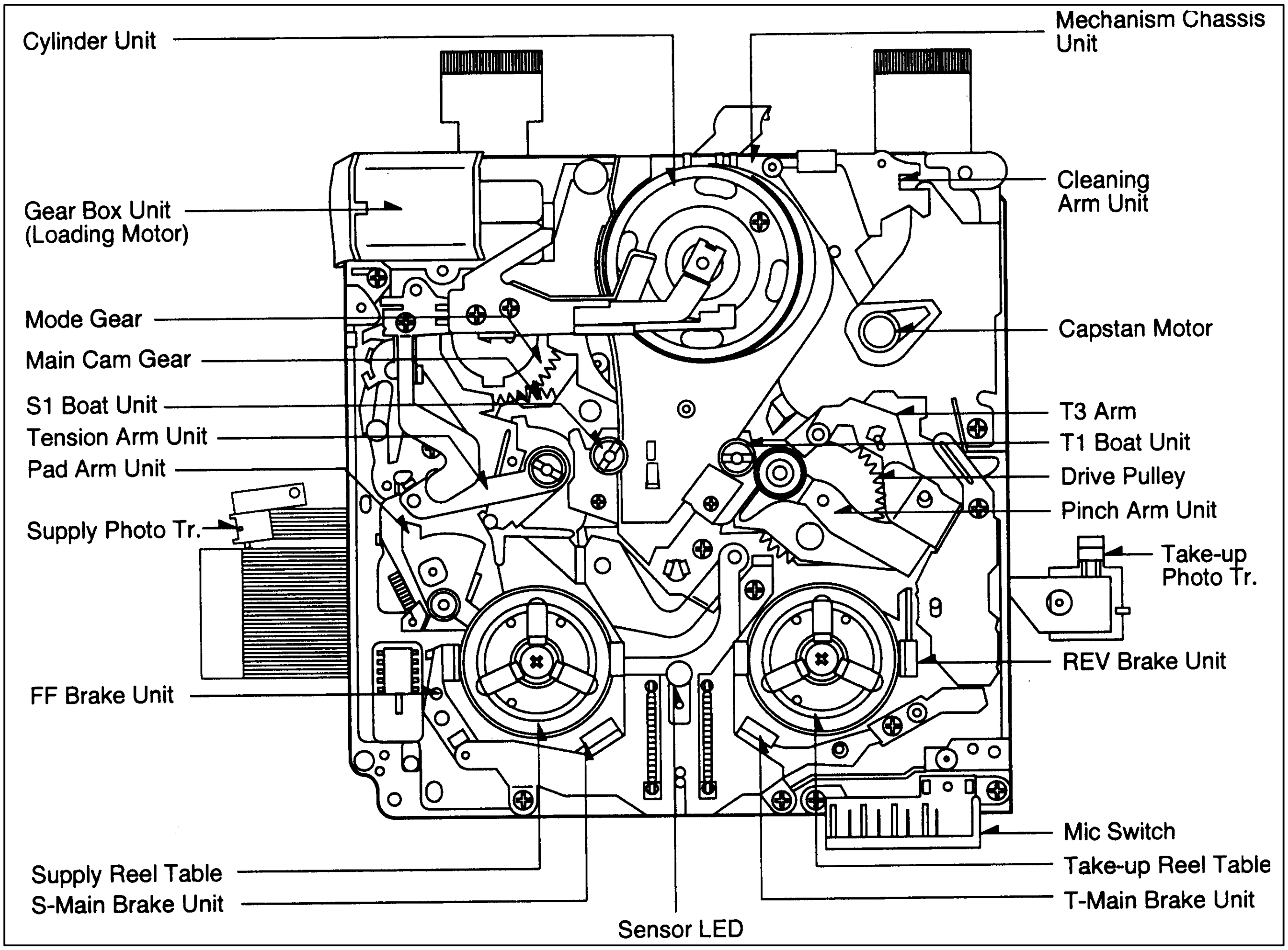

Cylinder Unit
Mechanism Chassis Unit
Gear Box Unit (Loading Motor)
Cleaning Arm Unit
Mode Gear
Capstan Motor
Main Cam Gear
S1 Boat Unit
T3 Arm
Tension Arm Unit
T1 Boat Unit
Pad Arm Unit
Drive Pulley
Pinch Arm Unit
Supply Photo Tr.
Take-up Photo Tr.
REV Brake Unit
FF Brake Unit
Mic Switch
Take-up Reel Table
Supply Reel Table
S-Main Brake Unit
T-Main Brake Unit
Sensor LED

Figure M1

1-2. Regular Maintenance

The purpose of periodic maintenance is to preserve the functioning throughout its useful life.

The user or service dealer should perform these maintenance regularly to ensure that maximum utility is obtained from the machine.

The VCR is complicated place of equipment. It contains many belts, rollers, heads etc., which become worn, and deteriorate as time goes by, causing trouble. Dust and dirt will also impede the proper functioning of the machine. In light of this, t is very important that overall maintenance be done according to the maintenance chart to maintain the functions of the VCR, and to avoid accidental problems. This maintenance should also be performed after any repairs are done on the equipment. The VCR used for business applications requires particular attention for several reasons. The installation conditions and applications are not always the best. Long use times, or poor environmental conditions may adversely affect the life span and performance of the machine. Regular maintenance assures that the purchaser obtains the maximum value for his expenditure. Accordingly, the necessity of regular maintenance should be fully explained at the time of sale, as well as during after-sale repairs.

1-2-1. MAINTENANCE CHART

The following periodic maintenance is required to maintain AG-DVC15E in good condition.

No.	Part Name	Part No.	Cleaning	Replacement	Remark
	Tape Transport Part	------	100 hours	------	*1
1	Cylinder Unit	VEG1573	100 hours	Every 1000 hours	
2	Pinch Arm Unit	VXL2464	------	Every 1000 hours	
3	Cleaning Arm Unit	VXL2468	------	Every 1000 hours	
4	Gear Box	VXA5417	------	Every 1000 hours	
5	REV Brake Unit	VXZ0323	------	Every 1000 hours	
6	FF Brake Unit	VXZ0322	------	Every 1000 hours	
7	S-Main Brake Unit	VXZ0321	------	Every 1000 hours	
8	T-Main Brake Unit	VXZ0319	------	Every 1000 hours	
9	Supply Reel Table	VXR0355	------	Every 1000 hours	
10	Take-up Reel Table	VXR0356	------	Every 1000 hours	
11	Made Cam SW Unit	VSR0114	------	Every 1000 hours	
12	Main Cam Gear	VXA5407	------	Every 1000 hours	
13	S1 Boat Unit	VXA5409	------	Every 1000 hours	
14	T1 Boat Unit	VXA5410	------	Every 1000 hours	
15	Tension Arm Unit	VXL2456	------	Every 1000 hours	
16	Pad Arm Unit	VXL2458	------	Every 1000 hours	
17	Mechanism Chassis Unit	VXY1598	------	Every 3000 hours	*2

Figure M2

Note;

Using hours are based on the head rotation hours.(No hour meter in this Camera Recorder.)

Using hours are recommendation. It may depend on temperature, humidity, quality of tape or dust condition.

Using hours are listed as the reference of maintenance. They do not mean guarantee hours.

*1 Tape transport parts mean following parts.
(Tension Post, S3 Post, S2 Post, S1Roller, Cylinder & Heads,T1 Roller, T2 Post, Capstan Shaft, Pinch Roller and T3 Post)

*2 Parts listed No.1 thorough 15 are included in Mechanical Chassis Unit. Replacing the Mechanism Chassis Unit is recommended every 3000 hours.

1-3. Disassembly/Assembly Procedures of Mechanism

1-3-1.Disassembly Flowchart

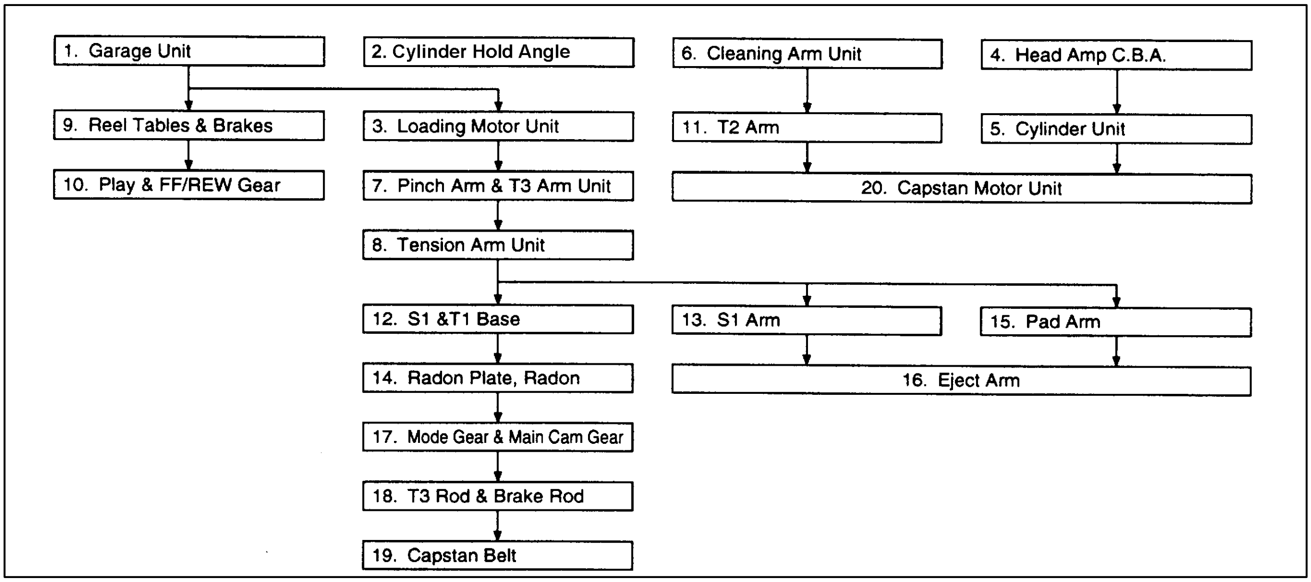

1. Garage Unit
2. Cylinder Hold Angle
6. Cleaning Arm Unit
4. Head Amp C.B.A.
9. Reel Tables & Brakes
3. Loading Motor Unit
11. T2 Arm
5. Cylinder Unit
10. Play & FF/REW Gear
7. Pinch Arm & T3 Arm Unit
20. Capstan Motor Unit
8. Tension Arm Unit
12. S1 &T1 Base
13. S1 Arm
15. Pad Arm
14. Radon Plate, Radon
16. Eject Arm
17. Mode Gear & Main Cam Gear
18. T3 Rod & Brake Rod
19. Capstan Belt

Figure M3

1-3-2. Manual Loading / Unloading

For the mechanism maintenance, loading and unloading operation can be manually performed.

In order to perform manual loading and unloading easily, use Gear Driver (VFK1266) as shown in Figure M4.

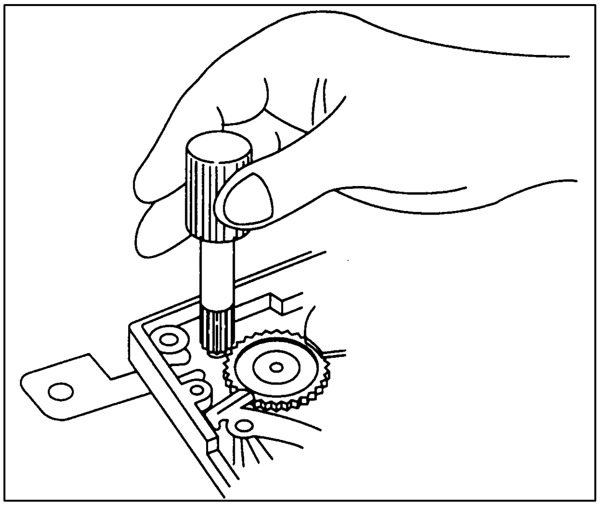


Figure M4

Rotate the Gear Driver clockwise or counterclockwise so that the Mode Cam Gear rotates opposite direction of the Gear Driver rotation, and then loading and unloading are performed

1-3-3. Disassembly Procedures

1-3-3-1. Garage Unit

1. Slide the Lock Lever with tweezers to eject the Garage.

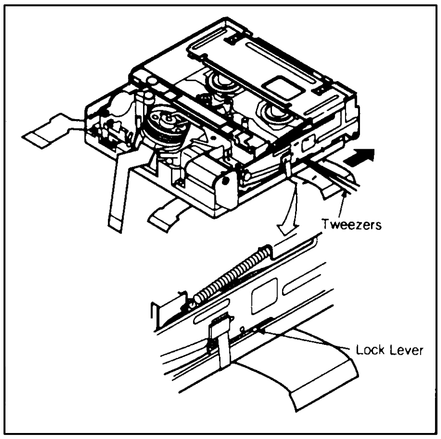

Tweezers
Lock Lever

Figure M5

(Manual Eject)
Unscrew 2 screws (A) and removes Supply and Take-up Photo Transistors from Garage Unit. Unscrew 4 screws (B) and remove the Garage Unit.

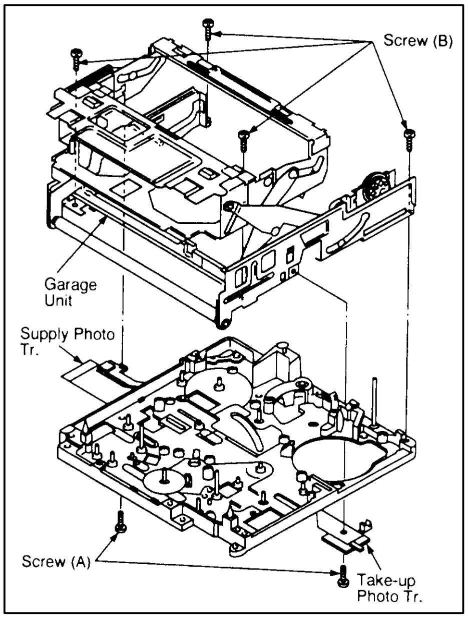

Screw (B)
Garage Unit
Supply Photo Tr.
Screw (A)
Take-up Photo Tr.

Figure M6

1-3-3-2. Cylinder Hold Angle

1. Unscrew 2 screws (C) and remove the Earth Brush.

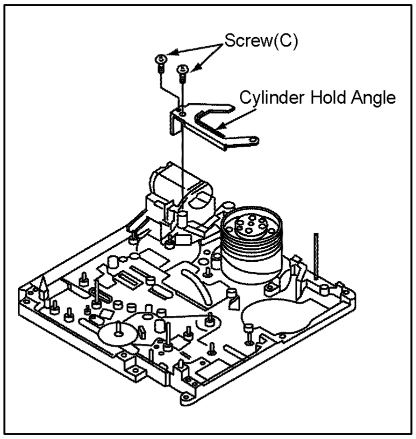

Screw(C)
Cylinder Hold Angle

Figure M7

(Note of installation)
Install the Cylinder Hold Angle so that the tip of Angle is located in the P.C.Board.

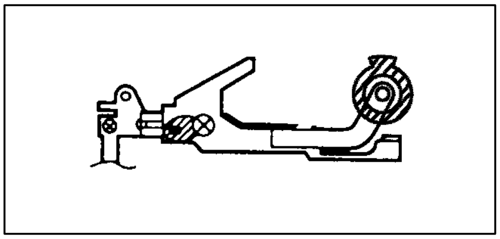


Figure M8

1-3-3-3. Loading Motor Unit

1. Unsolder the soldered portion (D). Unscrew 2 screws (E) and remove the Loading Motor Unit.

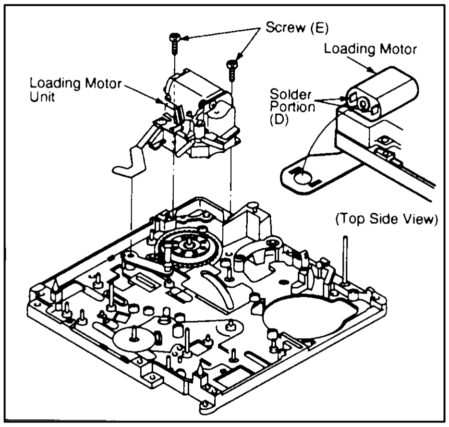

Screw (E)
Loading Motor
Loading Motor Unit
Solder Portion (D)
(Top Side View)

Figure M9

1-3-3-4. Head Amp C.B.A.

1. Unscrew screw (F) and remove the Capstan Cover. Disconnect FP5001.Disconnect Unscrew 2 screws (G) and remove the Head Amp C.B.A.

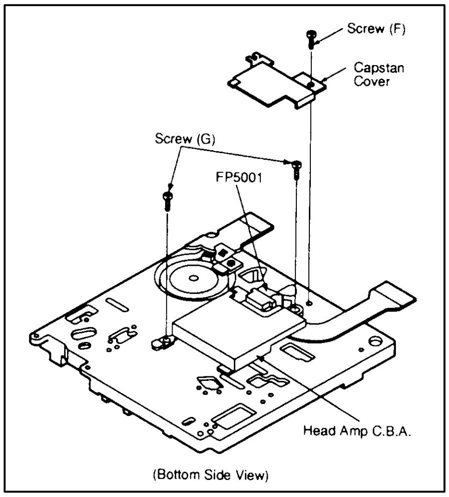

Screw (F)
Capstan Cover
Screw (G)
FP5001
Head Amp C.B.A.
(Bottom Side View)

Figure M10

1-3-3-5. Cylinder Unit

1. Unscrew 3 screws (H) and remove the Cylinder Unit carefully. Do not touch the Video Head.

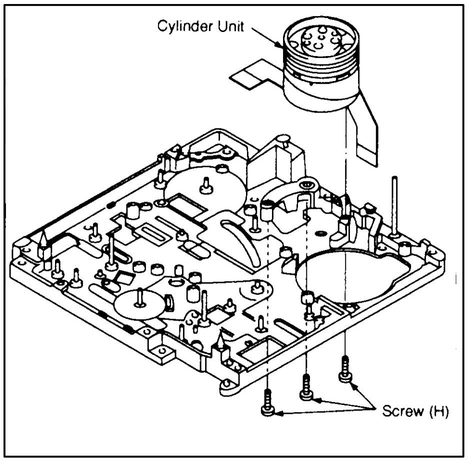

Cylinder Unit
Screw (H)

Figure M11

1-3-3-6. Cleaning Arm Unit

1. Unlock the locking portion of the Cleaning Arm Unit.

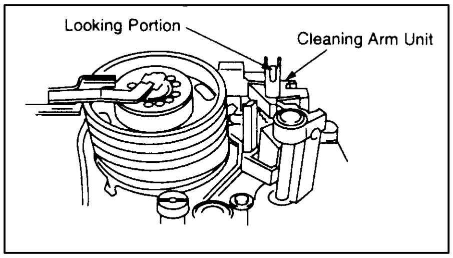

Looking Portion
Cleaning Arm Unit

Figure M11

(Note of installation)
Hooking portion of the Cleaning Arm Spring is;
Spring (a) -- Cleaning Arm spring (a')
Spring (b) -- T2 Arm Unit (b')

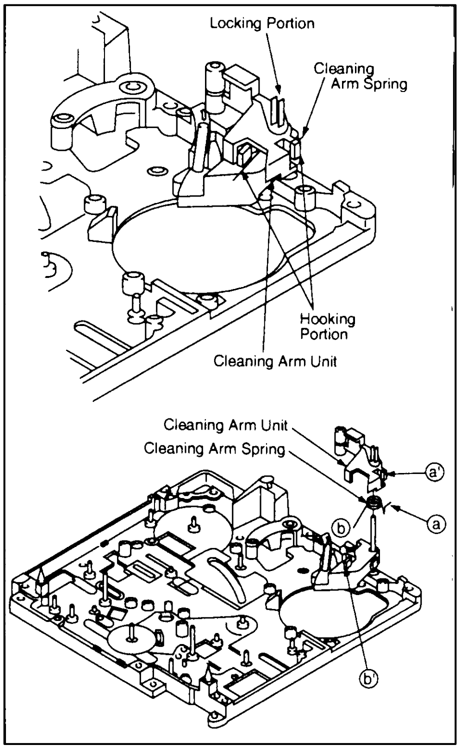

Locking Portion
Cleaning Arm Spring
Hooking Portion
Cleaning Arm Unit
Cleaning Arm Unit
Cleaning Arm Spring
a'
a
b
b'

Figure M13

1-3-3-7. Pinch Arm & unlock T3

1. Unscrew screw (I), then slide the Pinch Pressure Plate and unlock the locking portion.

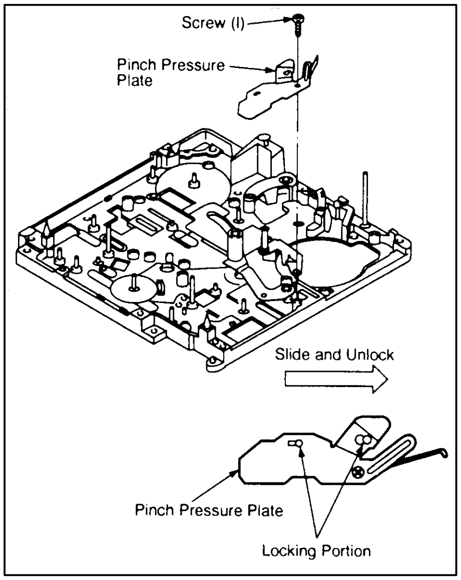

Screw (I)
Pinch Pressure Plate
Slide and Unlock
Pinch Pressure Plate
Locking Portion

Figure M14

(Note of installation)
Remove the T3 Arm Unit.
After install T3 Arm Unit, the Height Adjustment is required.

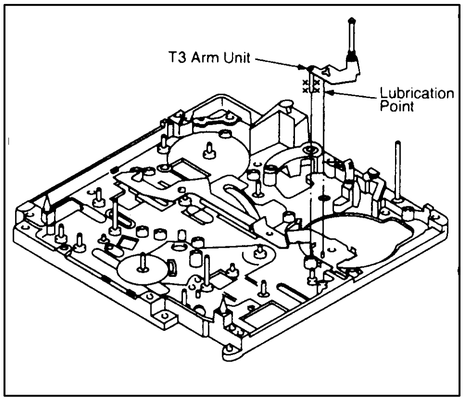

T3 Arm Unit
Lubrication Point

Figure M15

(Note of installation)
Remove the Pinch Arm Unit and Pinch Arm Spring.

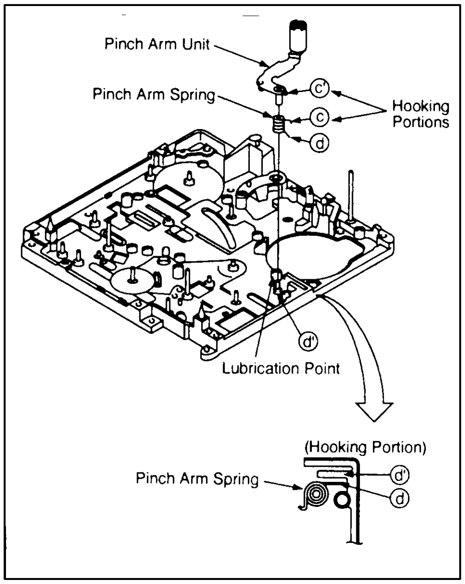

Pinch Arm Unit
Pinch Arm Spring
c'
c
d
Hooking Portions
d'
Lubrication Point
(Hooking Portion)
Pinch Arm Spring
d'
d

Figure M16

(Note of installation)
Hooking portion of the Pinch Arm Spring is;
Spring (c) -- Pinch Arm (c')
Spring (d) -- T3 Rod (d')

1-3-3-8. Tension Arm Unit

1. Turn the Mode Gear counter-clockwise until Tension Arm Unit slightly move to loading direction. Remove the Tension Arm Unit and Cut Washer (J).

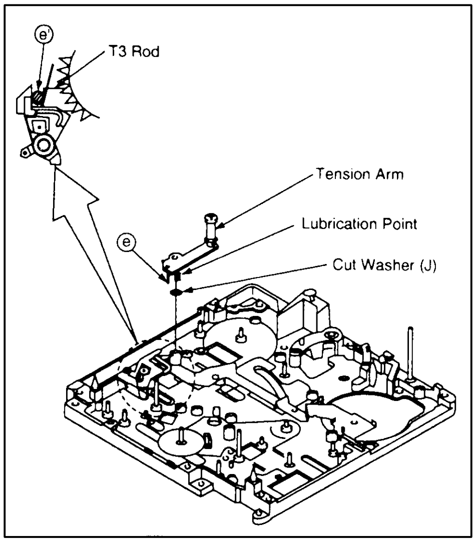

e'
T3 Rod
Tension Arm
e
Lubrication Point
Cut Washer (J)

Figure M17

(Note of installation)
The projection (e) on Tension Arm meets guide (e') on the T3 Rod which is shifted by turning Mode Gear.

1-3-3-9. Reel Tables & Brakes

1. Unhook the hooking portion (f) and (f'). Unscrew 3 screws (K) and remove Cover Plate.

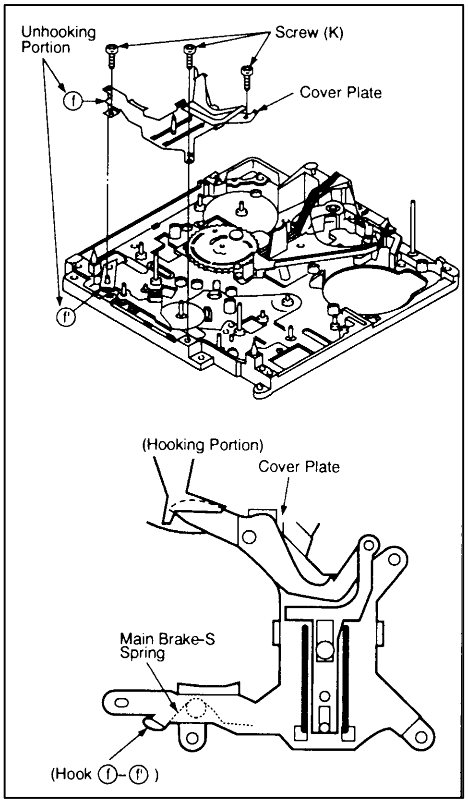

Unhooking Portion
Screw (K)
f
Cover Plate
f'
(Hooking Portion)
Cover Plate
Main Brake-S Spring
(Hook f-f')

Figure M18

2. Remove Supply and Take-up Reel Tables.

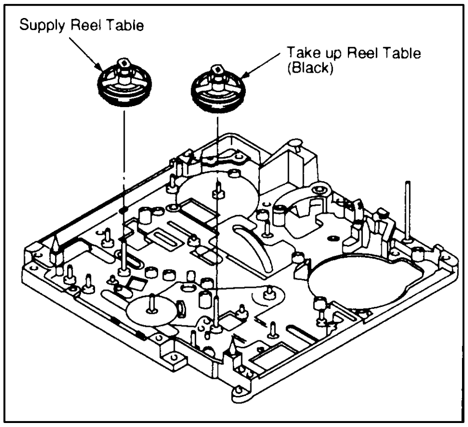

Supply Reel Table
Take up Reel Table
(Black)

Figure M19

3. Unhook the hooking portion (g) and (g') of the Review Brake Spring and remove Review Brake.

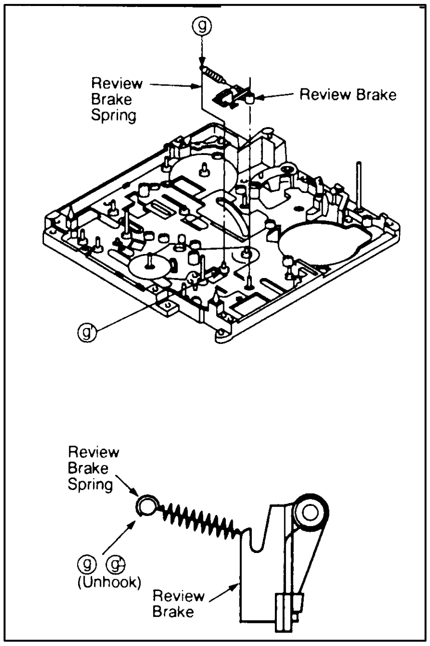

ⓖ
Review
Brake
Spring
Review Brake
ⓖ'
Review
Brake
Spring
ⓖ ⓖ'
(Unhook)
Review
Brake

Figure M20

4. Remove the FF Brake and FF Brake Spring.

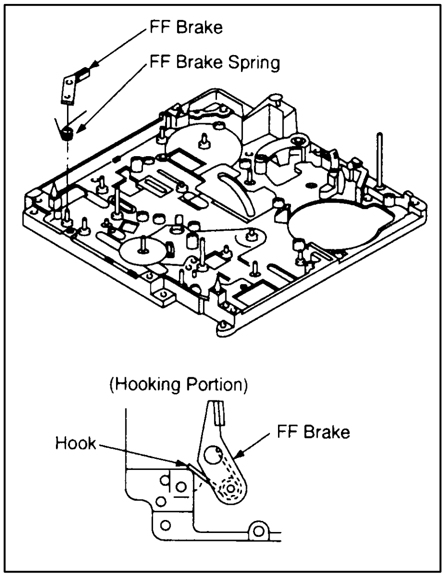

FF Brake
FF Brake Spring
(Hooking Portion)
Hook
FF Brake

Figure M21

(Note of installation)
Confirm the hooking portion of the FF Brake Spring.

5. Remove the Main Brake S and Main Brake-S Spring.

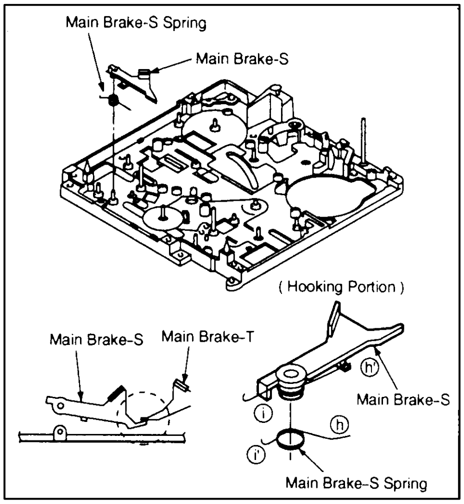

Main Brake-S Spring
Main Brake-S
(Hooking Portion)
Main Brake-S
Main Brake-T
ⓗ'
ⓘ
Main Brake-S
ⓗ
ⓘ'
Main Brake-S Spring

Figure M22

(Note of installation)
Confirm the hooking portion of the Main Brake-S Spring.

6. Remove the Cut Washer (L) and Main Brake T Unit.

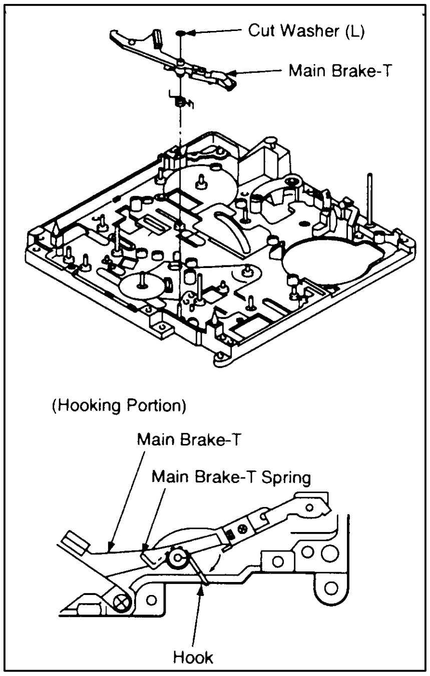

Cut Washer (L)
Main Brake-T
(Hooking Portion)
Main Brake-T
Main Brake-T Spring
Hook

Figure M23

(Note of installation)
Confirm the hooking portion of the Main Brake T Spring.

1-3-3-10. Play & FF/REW Gear

1. Remove the Play Idler and Play Gear.

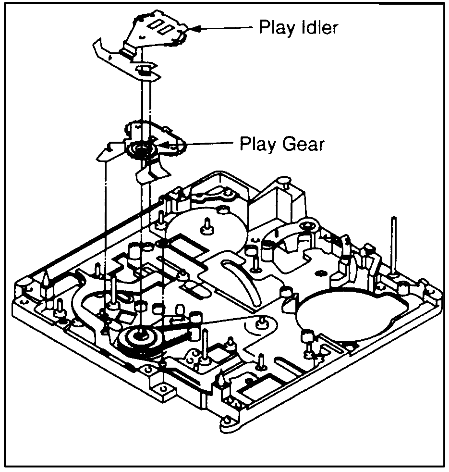

Play Idler
Play Gear

Figure M24

1-3-3-11. T2 Arm Unit

1. Remove the Cut Washer (M) and T2 Arm Unit with spring.

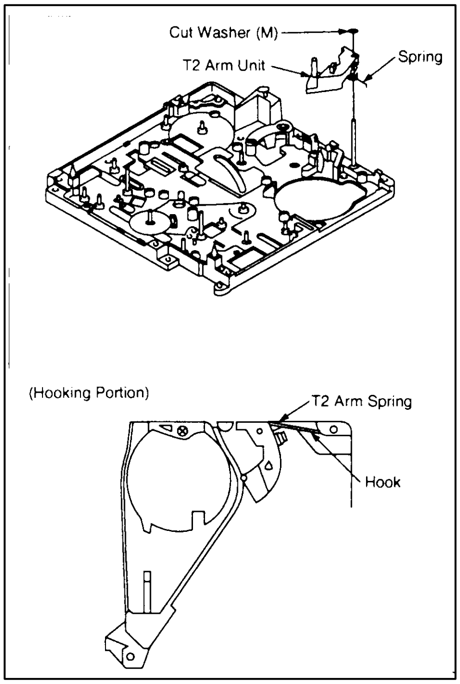

Cut Washer (M)
T2 Arm Unit
Spring
(Hooking Portion)
T2 Arm Spring
Hook

Figure M25

(Note of installation)
Confirm the hooking portion of the T2 Arm Spring.

1-3-3-12. S1 & T1 Base

1. Turn the Mode Gear counter-clockwise until half loading position. Hold (N) and (O) positions on S1 and T1 Arm units and then unlock the locking portions (A) and (B) with tweezers.

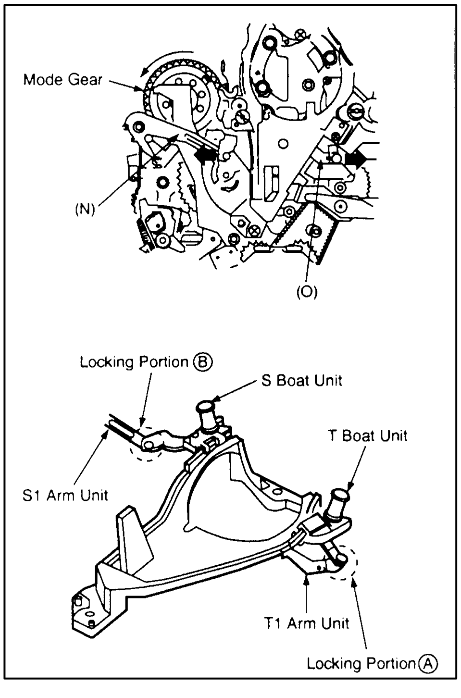

Mode Gear
(N)
(O)
Locking Portion Ⓑ
S Boat Unit
T Boat Unit
S1 Arm Unit
T1 Arm Unit
Locking Portion Ⓐ

Figure M26

2. Remove 2 screws (P) and Cylinder Base Unit with S and T Boat Units. Then remove S and T Boat Units from the Cylinder Base Unit.

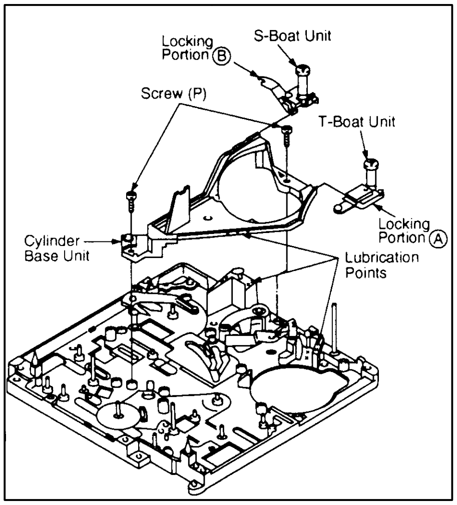

Locking Portion Ⓑ
S-Boat Unit
Screw (P)
T-Boat Unit
Locking Portion Ⓐ
Cylinder Base Unit
Lubrication Points

Figure M27

(Note of installation)
After install the Cylinder Base Unit move, S and T Boat to loading completed position by finger and turn the Mode Gear clockwise until half loading position. Then connect the locking portion (A) and (B).

1-3-3-13. S1 Arm

1. Turn the Mode Gear fully counter-clockwise. Remove the Cut Washer (Q) and S1 Arm Unit.

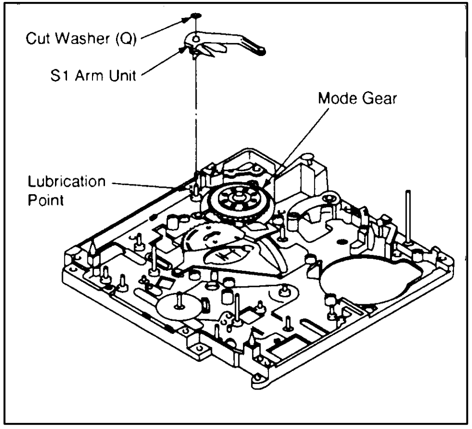

Cut Washer (Q)
S1 Arm Unit
Mode Gear
Lubrication Point

Figure M28

1-3-3-14. Radon Plate, Radon Arm & T1 Arm

1. Unscrew 2 screws (R) and remove Radon Plate.

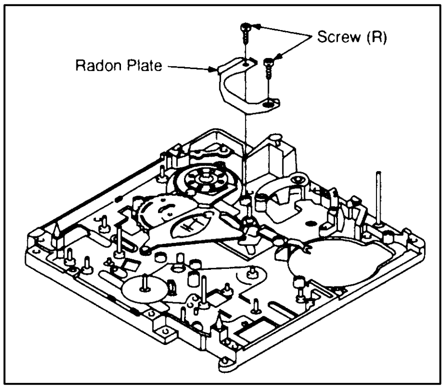

Screw (R)
Radon Plate

Figure M29

2. Unscrew screw (S) and remove Radon Arm Unit.

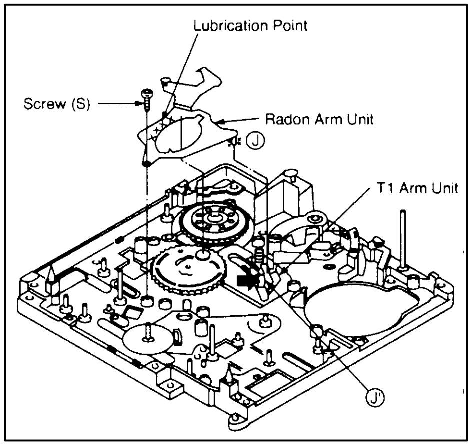

Lubrication Point
Screw (S)
Radon Arm Unit
Ⓙ
T1 Arm Unit
Ⓙ'

Figure M30

(Note of installation)
When installing the T1 Arm Unit, the projection (j) on the Radon Arm Unit is aligned to guide (j') on the T1 Arm Unit by pushing the T1 Arm Unit.

3. Remove the T1 Arm Unit.

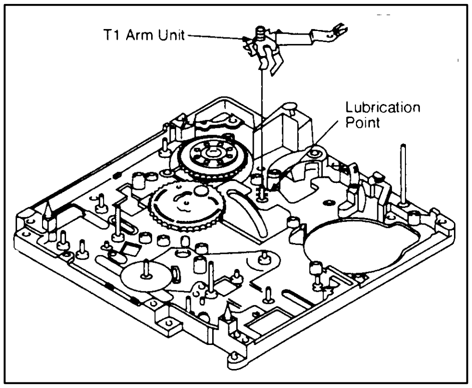

T1 Arm Unit
Lubrication Point

Figure M31

1-3-3-15. Pad Arm

1. Unhook the hooking portion (k') of the Pad Arm Spring. Remove the Cut Washer (T) and Pad Arm Unit.

(Note of installation)
Confirm the hooking portion of the Pad Arm Spring(k..k').

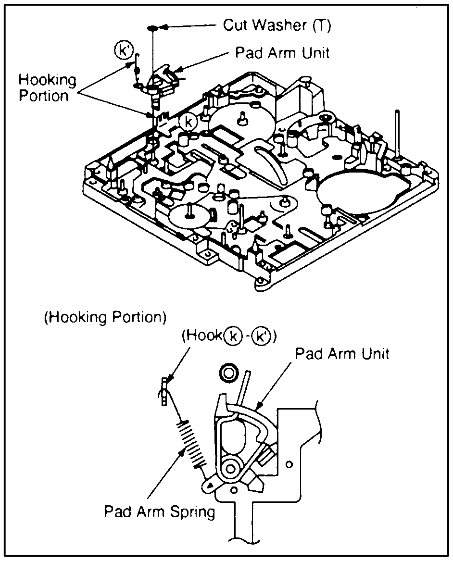

Cut Washer (T)
ⓚ'
Pad Arm Unit
Hooking Portion
ⓚ
(Hooking Portion)
(Hookⓚ-ⓚ')
Pad Arm Unit
Pad Arm Spring

Figure M32

1-3-3-16. Eject Arm

1. Unscrew 2 screws(U) and remove the Eject Arm Unit.

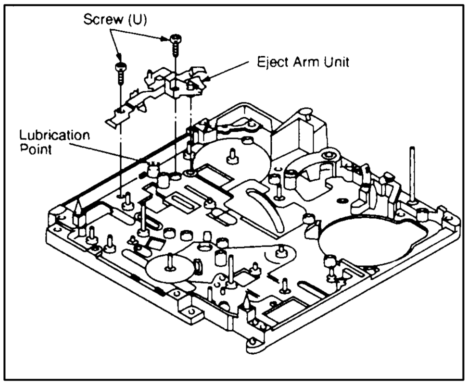

Screw (U)
Eject Arm Unit
Lubrication Point

Figure M33

1-3-3-17. Mode Gear & Main Cam Gear

1. Remove the Main Cam Gear. Unsolder the soldered portion (l) on the Mechanism Flexible Board. Then remove the Mode Gear.

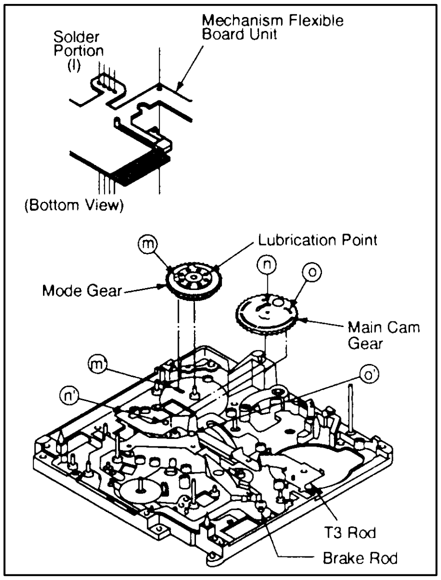

Solder Portion (l)
Mechanism Flexible Board Unit
(Bottom View)
ⓜ
Lubrication Point
ⓝ
ⓞ
Mode Gear
Main Cam Gear
ⓜ'
ⓝ'
ⓞ'
T3 Rod
Brake Rod

Figure M34

(Note of installation)
The projection (m) on the Mode Gear meets with the hole (m') on the Mechanism Chassis.
Push the Brake and T3 Rod in fully left direction.

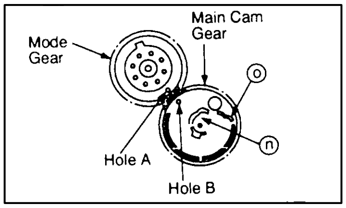

Main Cam Gear
Mode Gear
ⓞ
ⓝ
Hole A
Hole B

Figure M35

Install the Main Cam Gear so that the hole A on the Mode Gear is aligned to meet with the hole B on the Main Cam Gea

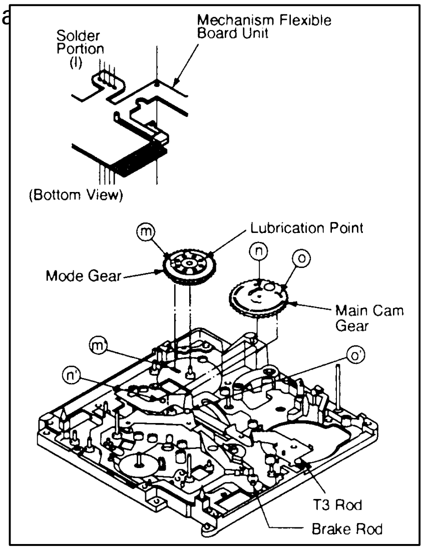

Solder Portion (l)
Mechanism Flexible Board Unit
(Bottom View)
ⓜ
Lubrication Point
ⓝ
ⓞ
Mode Gear
Main Cam Gear
ⓜ'
ⓝ'
ⓞ'
T3 Rod
Brake Rod

Figure M34

Shift the T3 Rod slowly in the right direction until guide (n) on the Main Cam Gear meets with the projection (n') on the T3 Rod.

Shift the Brake Rod slowly in the right direction until guide (o) on the Main Cam Gear meets with the projection(o')
on the brake Rod.

1-3-3-18. T3 Rod & Brake Rod

1. Remove the T3 Rod. The projection (p) and (q) on the T3 Rod meet with the guide (p') and (q') on the Mechanism Chassis

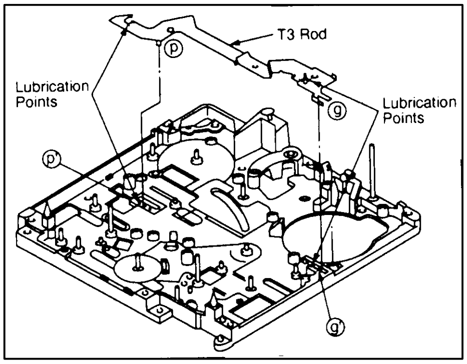

T3 Rod
p
Lubrication Points
q
Lubrication Points
p'
q'

Figure M36

2. Unscrew 2 screws (V) and remove the Brake Rod, Brake Rod Plate A and B.

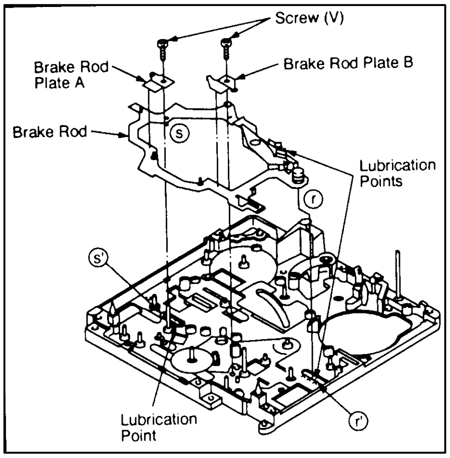

Screw (V)
Brake Rod Plate A
Brake Rod Plate B
Brake Rod
s
Lubrication Points
r
s'
Lubrication Point
r'

Figure M37

(Note of installation)
The projection (r) and (s) on the Brake Rod meet with the guide (r') and (s') on the Mechanism Chassis.

1-3-3-19. Capstan Belt

1. Remove the Center Gear and Washer (W). Unscrew screw (X) and remove LED Holder. Remove Cut Washer (Y).

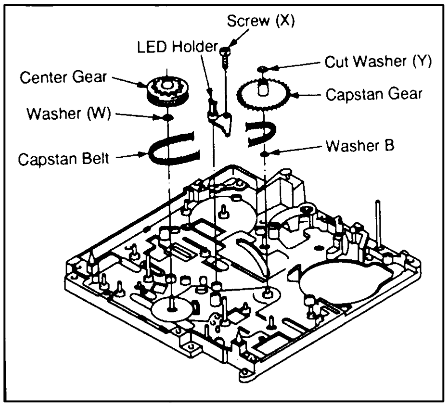

Screw (X)
LED Holder
Cut Washer (Y)
Center Gear
Capstan Gear
Washer (W)
Washer B
Capstan Belt

Figure M38

(Loosen a black screw on the Cap. Motor as shown in Fig.M36.) Slightly lift up in the direction and slowly remove the Capstan Gear. Do not bend the Capstan Shaft.

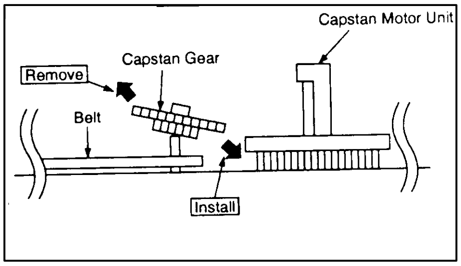

Capstan Motor Unit
Capstan Gear
Remove
Belt
Install

Figure M39

(Note of installation)
After install Capstan Gear, confirm no warp of the Capstan Gear, no bend of the Capstan Gear Shaft and smooth rotation of the Capstan and Center Gear.

2. Remove the Capstan Belt.

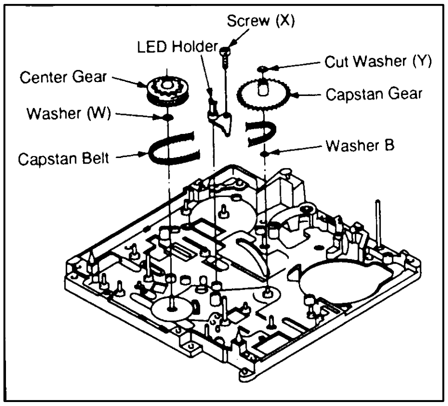

Screw (X)
LED Holder
Cut Washer (Y)
Center Gear
Capstan Gear
Washer (W)
Washer B
Capstan Belt

Figure M38

2.MECHANICAL ADJUSTMENT AND CONFIRMATION

When the following parts are replaced, the mechanical adjustment is required.

Tension Post
T3 Post
Pad Arm Unit
Supply or Take-up Reel Tables

2-1. Tension Post & T3 Post Height Adjustment

1. Set the Mechanism Plate (VFK1281) on the Mechanism Chassis.

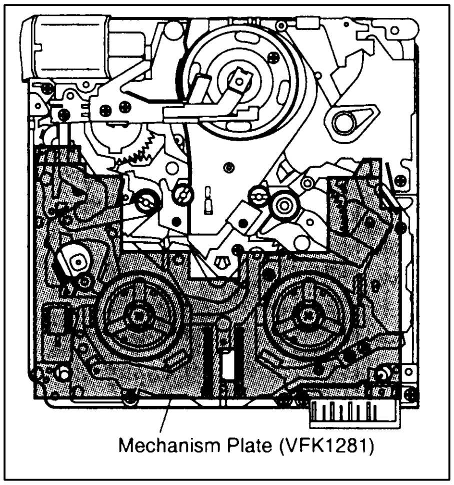

Mechanism Plate (VFK1281)

Figure M41

2. Turn the Mode Gear fully counterclockwise to make full loading condition by using Loading Gear Driver (VFK1276).

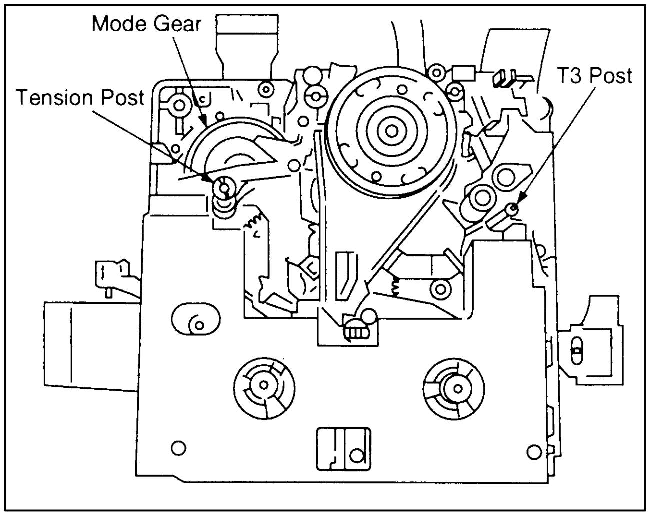

Mode Gear
Tension Post
T3 Post

Figure M42

3. Adjust the Tension Post so the lower flange (A) point become same height of the top surface (B) of 2nd step of the Mechanism Plate as shown in Fig.A43.
4. Adjust the T3 Post so that the lower flange (C) point become same height of the top surface (D) of the Mechanism Plate as shown in Fig.A43.

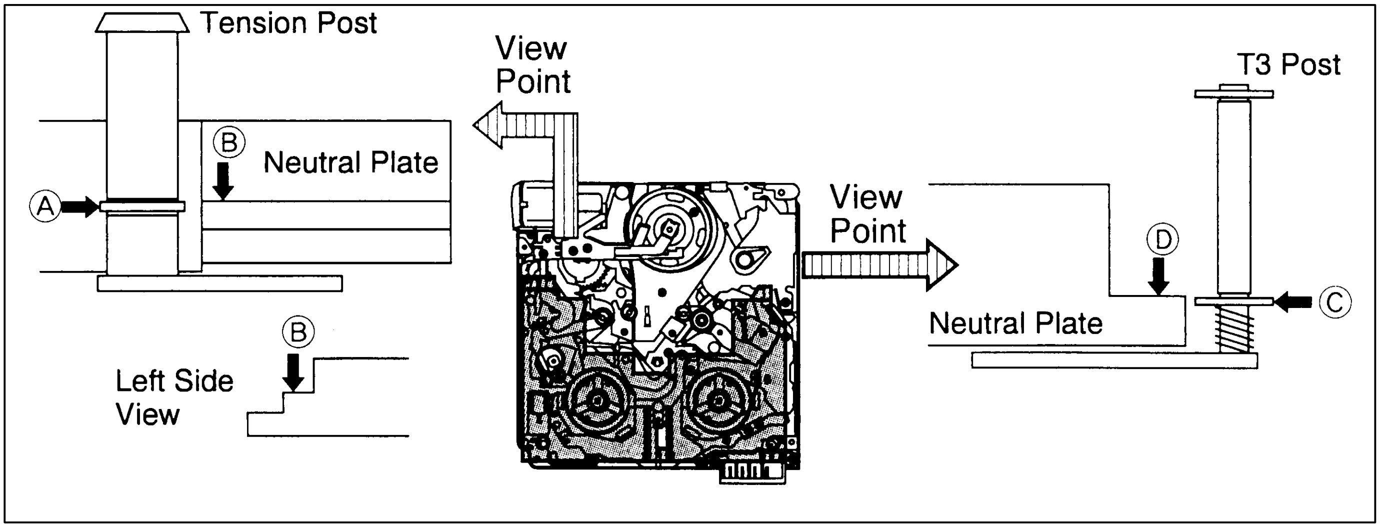

Tension Post
Ⓑ
Neutral Plate
Ⓐ
Ⓑ
Left Side View
View Point
View Point
T3 Post
Ⓓ
Neutral Plate
Ⓒ

Figure M43

2-2. Tension Post Position Adjustment

1. Turn the adjustment piece on the Pad Arm Unit fully counterclockwise.
2. Turn the Mode Gear to set the Mechanism position in the play mode, that the Soft Brake of the Pad Arm Unit just touch to the Supply Reel Table as shown in Fig.M44.
3. Set the Mechanism Plate on the Mechanism Chassis as shown in Fig.M44.
4. Turn the adjustment piece on the Pad Arm Unit clockwise slowly until the surface of the Tension Post comes to 2nd step. Set the Mechanism Plate as shown in Fig.A12. in Fig.A9.

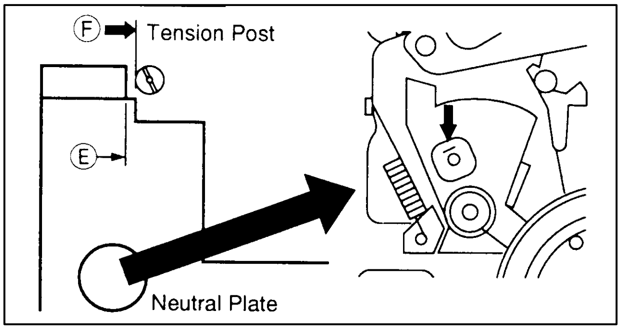


Figure M44

5. After adjustment, turn the Mode Gear to unloading direction then turn back to loading direction, and make sure that position is correct at above specification in Play position.

2-3. Supply & Take-up Reel Table Adjustment

This adjustment should be performed for Supply or Take-up Reel Table one by one.

1. Turn the adjustment screw (A) on top of the Supply or Take-up Reel Table fully clockwise. Then, place the Mechanism Plate on the Mechanism Chassis as shown in Fig.M41.
2. Hold the Mechanism plate by finger and slowly turn the adjustment screw counterclockwise until Reel Table just rotate with adjustment screw as shown in Fig.M45.
3. Remove the Mechanism Plate and hold the Reel Table by finger then turn the adjustment screw counterclockwise to 45 degrees from above step point.

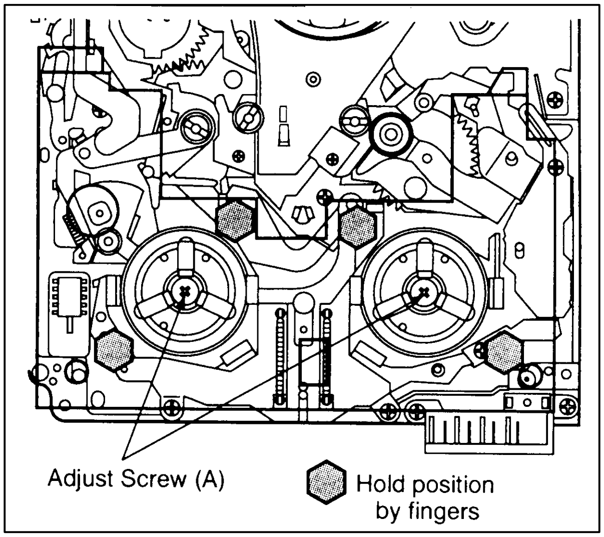


Figure M45

2-4. Confirmation of Tape Pass

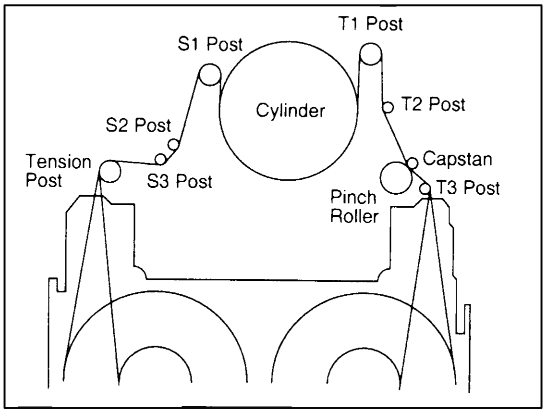


Figure M46

Play back the cassette tape and confirm that the tape pass without curling at the upper and lower guides of the following posts in the Play and REV modes as shown in Fig.M47.

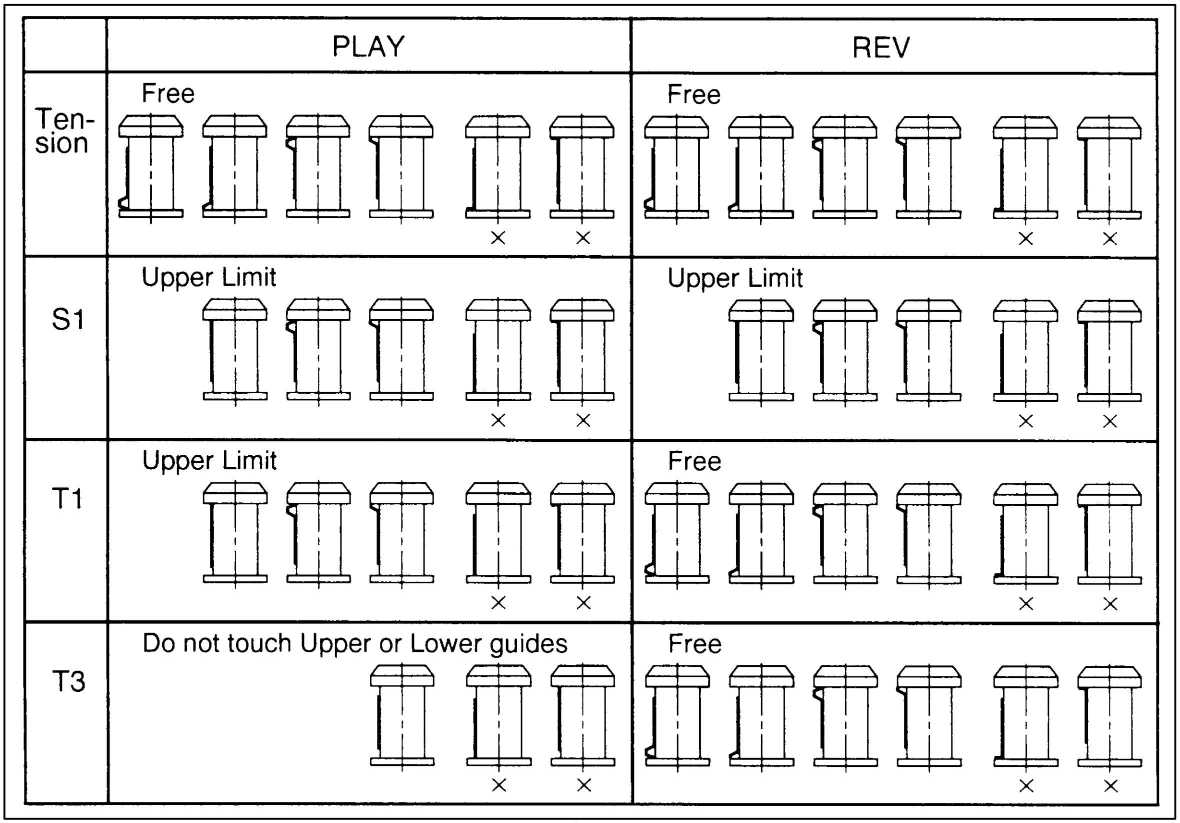

PLAY
REV
Ten-sion
S1
T1
T3
Free
Free
Upper Limit
Upper Limit
Upper Limit
Free
Do not touch Upper or Lower guides
Free
×

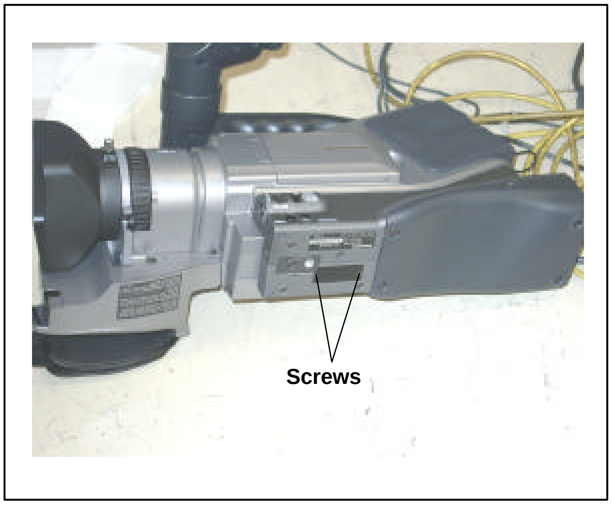
Figure M47

If there is curing or damage at the ether guide of posts, readjust the height of the posts by turning the post with the Post Adjustment Driver.

2-5. Confirmation of the Envelope

To confirm the envelope output, connect the Connection and Measuring Boards as described below.

1. Unscrew 2 screws and remove the EVR cover.



2. Connect the 2 pcs of 30 pin flat cables between P101 / P102 on the Measuring Board, and 2 connectors on the Connector Board. Make sure that the contact surface of 2 pcs of 30 pin Flat Cables are inner side and direction of the Connection Board is as shown in Figure M51. Then connect the Extension board.

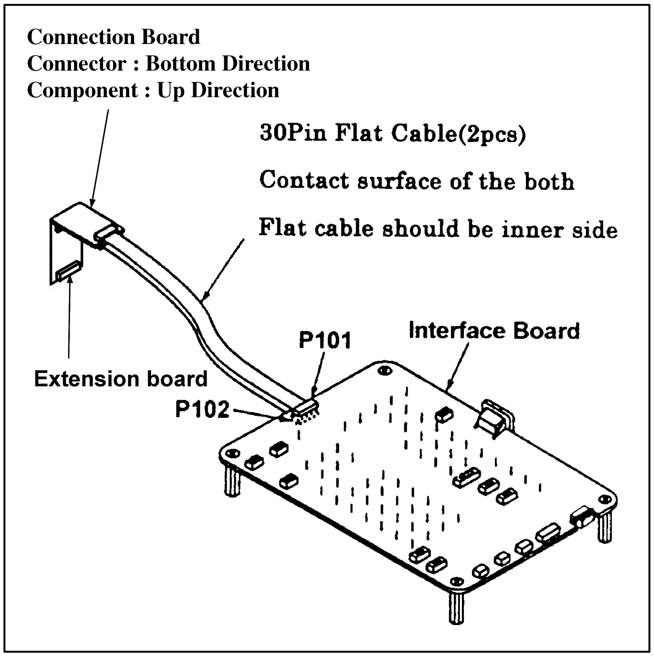

Connection Board
Connector : Bottom Direction
Component : Up Direction
30Pin Flat Cable(2pcs)
Contact surface of the both
Flat cable should be inner side
P101
Interface Board
Extension board
P102

Figure M51

3. Set the Connector Board with the 30 pin Cables to the unit. Make sure that the direction of the Connection Board is correct as shown below.

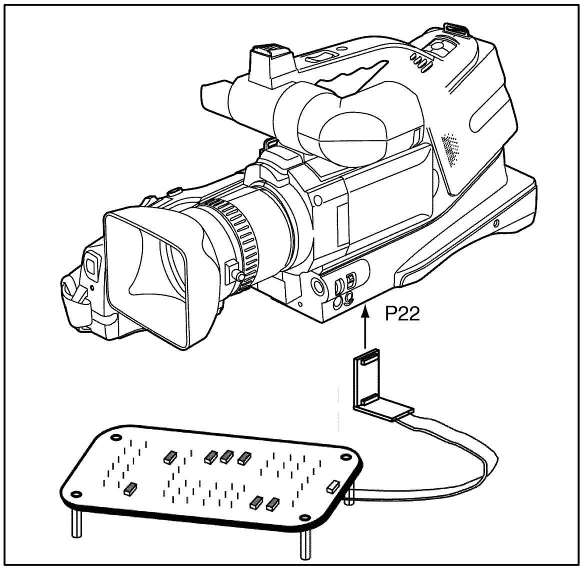


Figure M52

4. Connect the oscilloscope to the Measuring Points [ENVELOPE] and [HID] as a trigger on the Measuring Board.
5. Play back the color bar alignment tape and confirm that the Envelope is within the following specifications.

V1/V max. 0.9
V2/V max. 0.9
V3/V max. 0.9

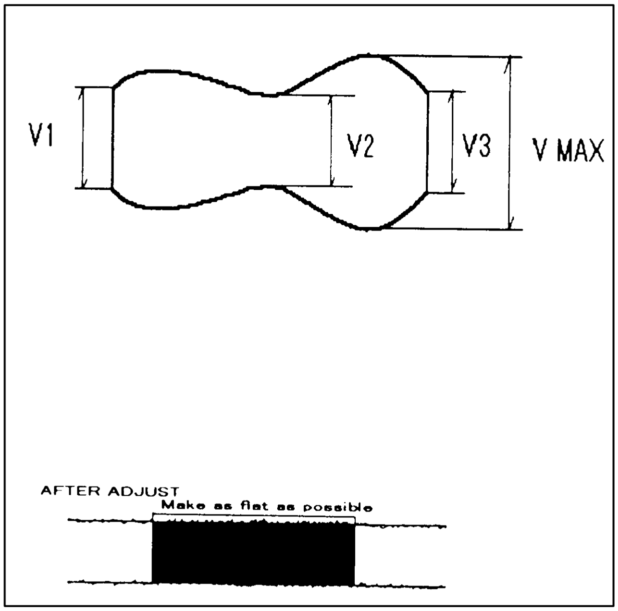

V1
V2
V3
V MAX
AFTER ADJUST
Make as flat as possible

Figure M53

6. If it is out of the specification, adjust the height of the Tension Post and T3 Post.

2-6. LISTA Adjustment Procedures

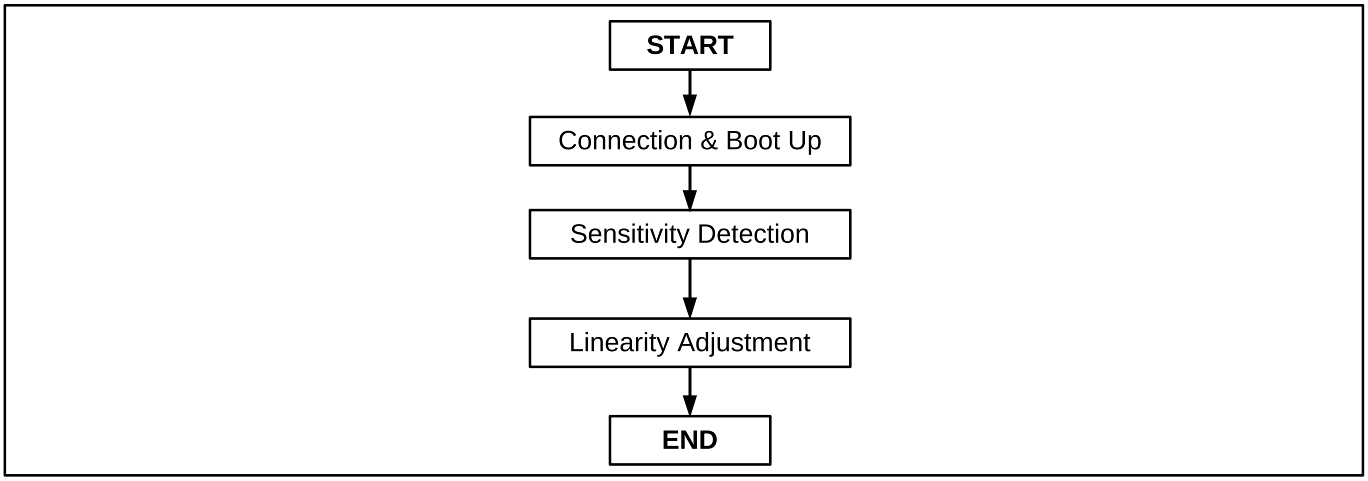

START
Connection & Boot Up
Sensitivity Detection
Linearity Adjustment
END

Figure 1

2-6-1. LISTA Connection and Boot Up

TAPE	VFM3110EDS (DV LISTA)
M. EQ	Personal Computer (A/D Board should be installed.)
TOOL	VFK1481B (LISTA Software), VFK1186 (LISTA Cable), VFK1300 (A/D Converter Board), VFK1308P (Measuring Board), VFK1409S (Measuring Board)
TP	TP F2 : ATF-ERR (VFK1409S), TP HID1 : TRG (VFK1308P), TP GND : GND (VFK1409S)

1. Connect a PC, the Measuring Board and the AG-DVC10 as shown below.

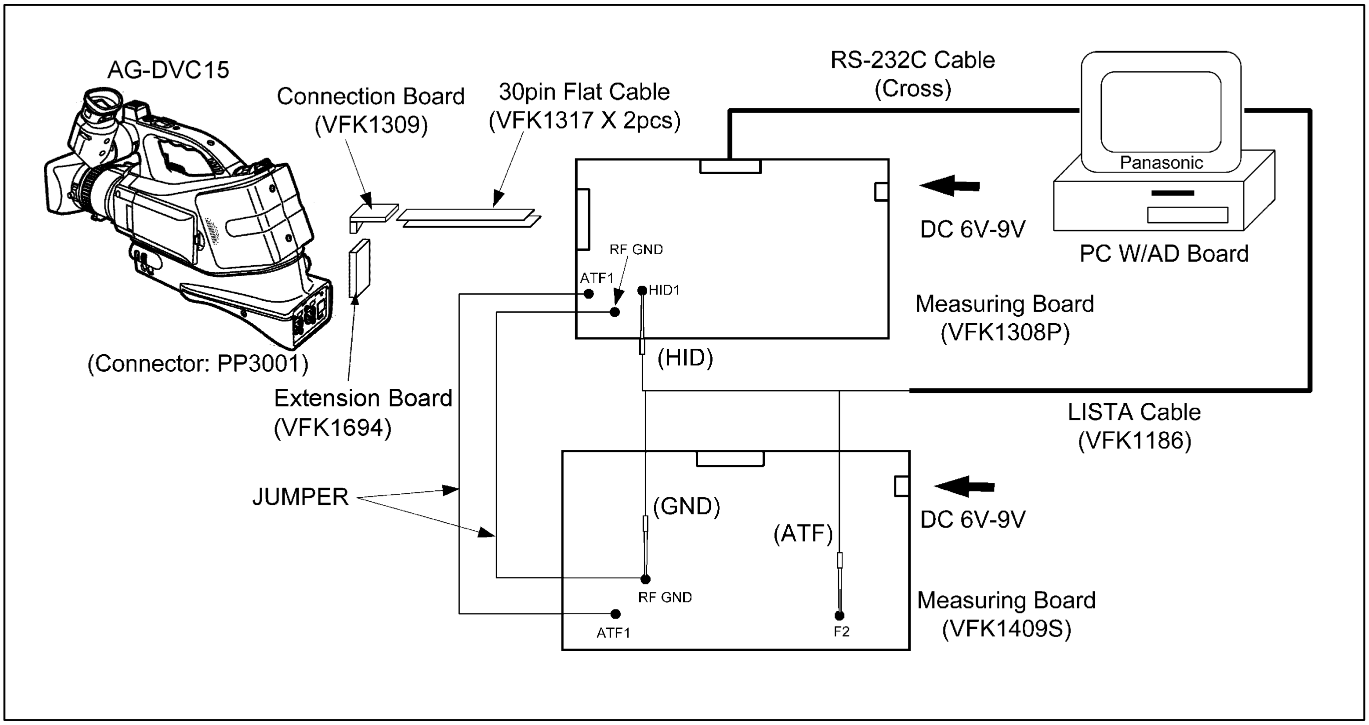

AG-DVC15
Connection Board
(VFK1309)
30pin Flat Cable
(VFK1317 X 2pcs)
RS-232C Cable
(Cross)
Panasonic
DC 6V-9V
PC W/AD Board
RF GND
ATF1
HID1
Measuring Board
(VFK1308P)
(HID)
(Connector: PP3001)
Extension Board
(VFK1694)
LISTA Cable
(VFK1186)
JUMPER
(GND)
DC 6V-9V
(ATF)
RF GND
ATF1
F2
Measuring Board
(VFK1409S)

Figure 2

2. Connect the clips of the LISTA cable to test point on the Measuring Board. (VFK1308P) (VFK1409S) (Refer to Items **“Sensitivity Adjustment”** and **“Linearity Adjustment”**.)

3. Set the switches on the Measuring Board as shown below.

<VFK1308P>

SW REF.	NAME OF SW	SETTING POSITION
SW101	RS-232 Select	It is depend on the type of the cable between the measuring board and PC. *Ordinary 9pin RS-232C Cross Cable: D-SUB Position *M4 RS-232C Cable: M3 Position
SW103	VTR Test	L Position
SW104	BST Test	NORMAL Position
SW106	REC I	OFF Position
SW107		CENTER Position

<VFK1409S>

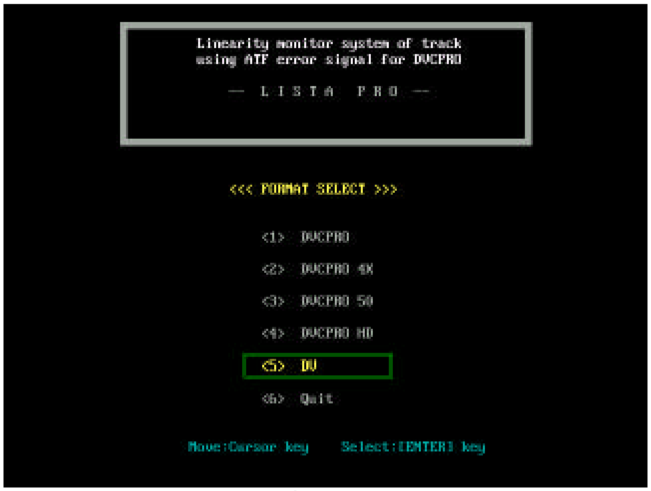
SW REF.	NAME OF SW	SETTING POSITION
-----	LISTA ON - OFF	ON Position

Figure 3

4. Boot up the LISTA software on DOS mode.

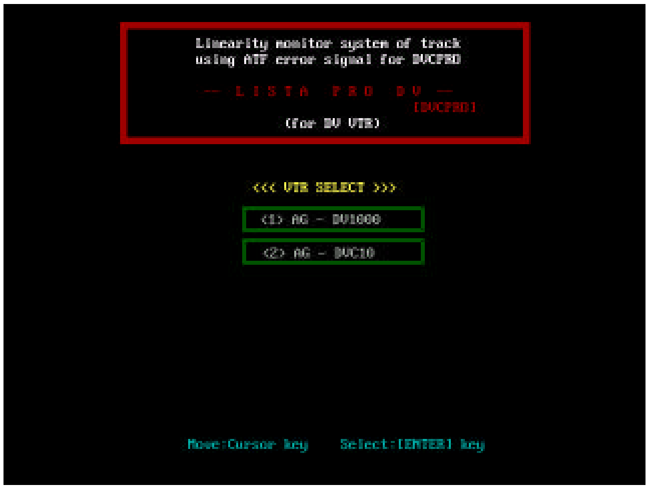
< How to Installation and Boot Up >
All files on the floppy disk (VFK1481B : LISTA Software) copy to created directly on PC (**i.e.;** C:¥LISTA).
Type **"LISTA"** and press **ENTER** key, then boot up the LISTA software VFK1481B.

5. After boot up the LISTA software, **<<< FORMAT SELECT >>>** display appeared. Select the item **"DV"**.
6. After select the format, **<<< VTR SELECT >>>** display appeared, and select the model **"AG-DV1000 or DVC10"**.



```
Linearity monitor system of track
using ATF error signal for DVCPRO

— L I S T A   P R O —

<<< FORMAT SELECT >>>

<1>  DVCPRO
<2>  DVCPRO 4X
<3>  DVCPRO 50
<4>  DVCPRO HD
<5>  DV
<6>  Quit

Move:Cursor key    Select:[ENTER] key
```

Figure 4



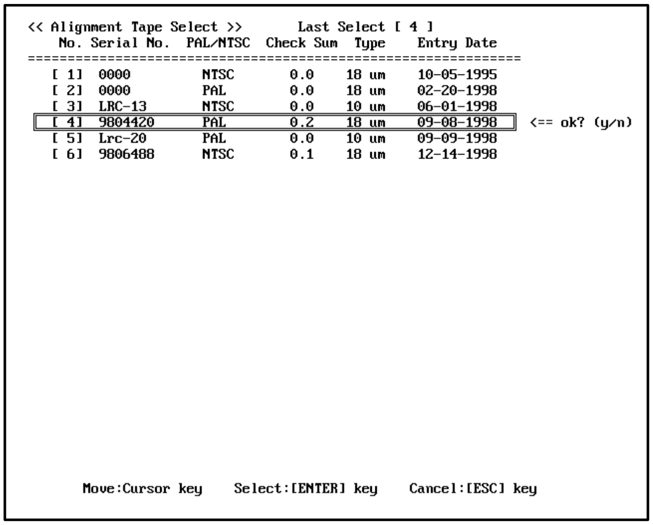
```
Linearity monitor system of track
using ATF error signal for DVCPRO

— L I S T A   P R O   D V —
                     [DVCPRO]
        (for DV VTR)

<<< VTR SELECT >>>
<1> AG - DV1000
<2> AG - DVC10

Move:Cursor key    Select:[ENTER] key
```

Figure 5

7. Next, select the Serial number of the Alignment tape on the screen. In case of LISTA software have not resisted data of alignment tape, press the ESC key, then main menu is display on the screen. And select the item **"<4> Alignment Tape"** for entry the data on the attachment sheet, which is enclosed of alignment tape.

8. In case of LISTA software have resisted data of alignment tape, select the serial number of Alignment tape, then appear message **“ok?(y/n)”** on the screen. And press **“ Y ”** or **“ ENTER ”** key, then LISTA main menu is display on screen.

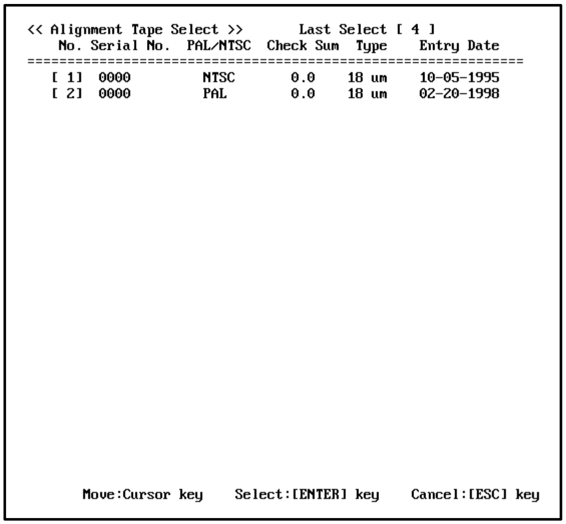
< In case of Alignment Tape resisted already >



```
<< Alignment Tape Select >>       Last Select [ 4 ]
    No. Serial No.  PAL/NTSC  Check Sum  Type    Entry Date
==============================================================
   [ 1]  0000         NTSC       0.0    18 um    10-05-1995
   [ 2]  0000         PAL        0.0    18 um    02-20-1998
   [ 3]  LRC-13       NTSC       0.0    10 um    06-01-1998
   [ 4]  9804420      PAL        0.2    18 um    09-08-1998   <== ok? (y/n)
   [ 5]  Lrc-20       PAL        0.0    10 um    09-09-1998
   [ 6]  9806488      NTSC       0.1    18 um    12-14-1998

         Move:Cursor key    Select:[ENTER] key    Cancel:[ESC] key
```

Figure 6

< In case of Alignment Tape does not resisted >



```
<< Alignment Tape Select >>       Last Select [ 4 ]
    No. Serial No.  PAL/NTSC  Check Sum  Type    Entry Date
==============================================================
   [ 1]  0000         NTSC       0.0    18 um    10-05-1995
   [ 2]  0000         PAL        0.0    18 um    02-20-1998

         Move:Cursor key    Select:[ENTER] key    Cancel:[ESC] key
```

Figure 7

2-6-2. How to Entry the Alignment Tape Data

1. Select the item **”<4> Alignment Tape”** on the LISTA main menu.
2. Select the item **”<2> ENTRY”** on the alignment menu.
3. After display the screen of **<<Alignment Tape Data Entry>>**, first input the Serial Number follow the printed number on the tape label. And input the number **“0”** or **“1”** for selected the PAL/NTSC. And after that for entry the tape type, incase of DVCPRO input to **“0”**, in case of DV input to **“1”**.
4. After select the tape type, the frame for input the DATA and CHECK SUM appeared on the screen. Input the numerical value in numerical order on the data sheet, which are enclosed with alignment tape. If input the wrong number, appear the error message on the screen, then confirm that the data on the sheet.
5. After entry the data, select **“<1> SELECT”** on the Alignment Tape Menu and select the serial number of the alignment tape.

<< Alignment Tape Data Entry >> **Serial No. 0596003 (NTSC) 10mm**

[1]	- 0.1
[2]	0.1
[3]	0.0
[4]	0.2
[5]	0.6
[6]	0.5
[7]	0.7
[8]	0.9
[9]	1.0
[10]	0.8

[11]	0.7
[12]	1.0
[13]	0.7
[14]	0.5
[15]	0.2
[16]	- 0.5
[17]	- 0.3
[18]	- 0.3
[19]	- 0.1
[20]	- 0.6

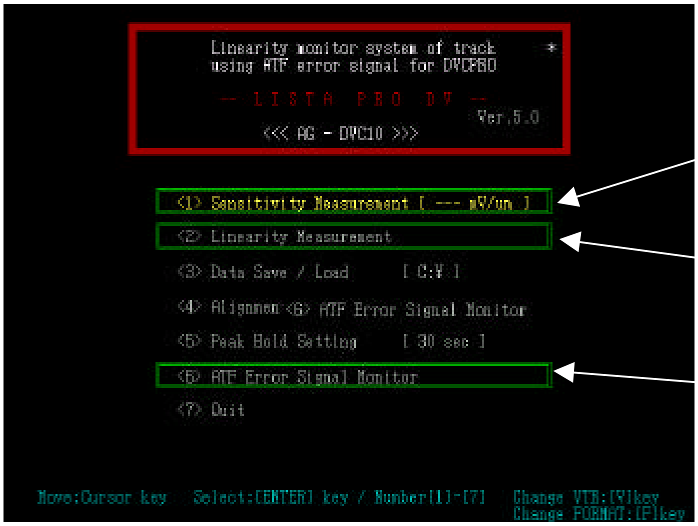
[21]	- 0.4
[22]	- 0.2
[23]	- 0.7
[24]	- 0.6
[25]	- 0.7
[26]	- 0.3
[27]	- 0.4
[28]	- 0.4
[29]	- 0.6
[30]	- 0.3

[31]	- 0.4
[32]	- 0.6
[33]	- 0.3
[34]	- 0.2
[35]	- 0.1
[36]	- 0.3
[37]	- 0.1

[CS]	- 0.6

2-6-3. LISTA Sensitivity Detection

TP	TP F2 : ATF ERR (VFK1409S), TP HID1 : TRG (VFK1308P), TP GND : GND (VFK1409S)
VTR MODE	PLAY
ADJ. MODE	Tape Speed 101.2% Mode (AUTO)
TAPE	VFM3000EDS (DV LISTA)
SPEC.	70 mV / µm to 300 mV / µm



```
Linearity monitor system of track        *
using ATF error signal for DVCPRO

   -- L I S T A   P R O   D V --
                                  Ver.5.0
         <<< AG - DVC10 >>>

<1> Sensitivity Measurement [ --- mV/um ]
<2> Linearity Measurement
<3> Data Save / Load        [ C:¥ ]
<4> Alignmen<6> ATF Error Signal Monitor
<5> Peak Hold Setting       [ 30 sec ]
<6> ATF Error Signal Monitor
<7> Quit

Move:Cursor key   Select:[ENTER] key / Number[1]-[7]   Change VTR:[V]key
                                                        Change FORMAT:[F]key
```

Select at Sensitivity Detection.

Select at Linearity Adjustment.

Select at Sensitivity Adjustment.

Figure 8

1. Insert the DV Alignment Tape (VFM3000EDS) to the Machine.
2. Select item **"<1> Sensitivity Measurement "** and press **"ENTER"**.
3. Then the tape is played back (tape speed : 101.2%) automatically.
4. Confirm the sensitivity value of the screen is with in specification.

<<Sensitivity Measurement Finish>>

Sensitivity	**142.95 (mV/um)**
Sens.1	138.43 (mV/um)
Sens.1	147.48 (mV/um)

Confirm that the value of Sens.Value1 and Sens.Value2 in specification

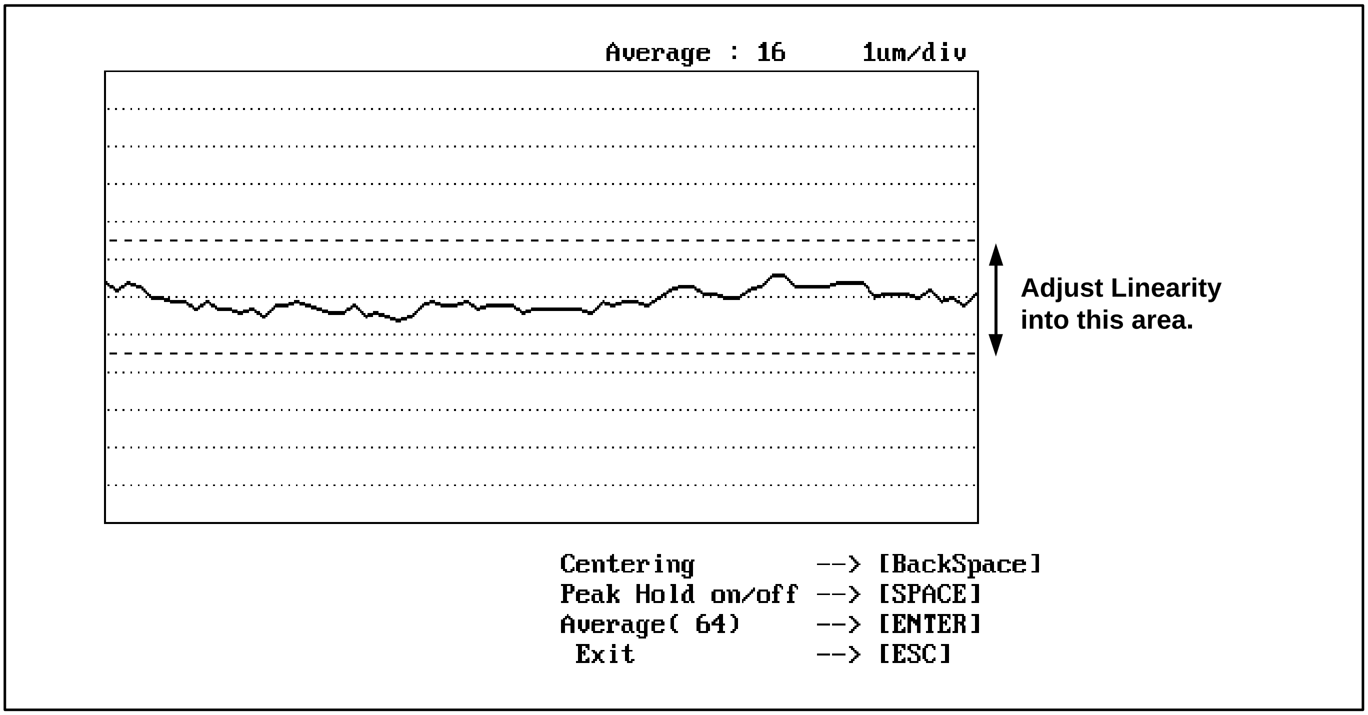
Figure 9

2-6-4. LISTA Linearity Adjustment

TP	TP F2 : ATF ERR (VFK1409S), TP HID1 : TRG (VFK1308P), TP GND : GND (VFK1409S)
ADJ.	S1 and T1 Post Height
VTR MODE	PLAY
ADJ. MODE	Linearity Adjustment Mode (AUTO)
TAPE	VFM3000EDS (DV LISTA)
TOOL	VFK1149A : Post Driver
SPEC.	Linearity : less than 3µm

1. Insert the DV Alignment Tape (VFM3000EDS) to the Machine.
2. Select the item **“<2> Linearity Measurement”** on the LISTA Main Menu, then appeared Linearity Waveform.
3. When the waveform as shown below figure is displayed on the screen, press the **”BS (Back Space)”** key for display the waveform positioned at the center of the scale on screen. Adjust S1 and T1 post height by using the post driver so that the linearity waveform is become flat as possible, and it should be within specification.

(Adjust linearity waveform in the red dot line on the screen.)



```
Average : 16     1um/div

Centering         --> [BackSpace]
Peak Hold on/off  --> [SPACE]
Average( 64)      --> [ENTER]
 Exit             --> [ESC]
```

Adjust Linearity into this area.

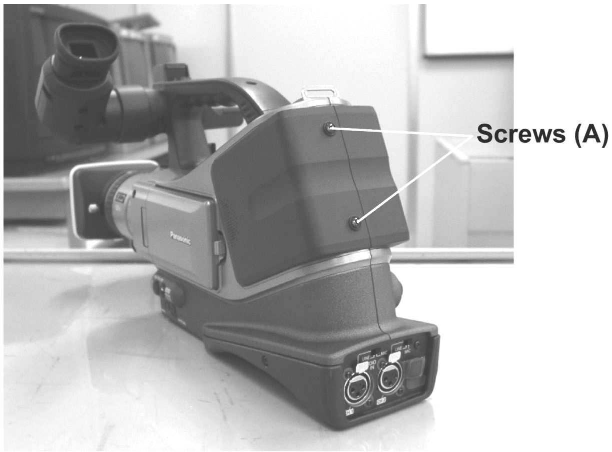
Figure 10

POINT :
The part of left side of waveform (entrance side) is adjusted by height of S1 post and part of right side of waveform (exit side) is adjusted by height of T1 post.
Lower part of above waveform of figure is displayed lead of Cylinder.
When the post driver is remove from upper part of post, linearity waveform is changed.
After finish this adjustment, eject the tape and insert the tape again for confirm the shape of linearity waveform does not changed.

DISASSEMBLY PROCEDURE

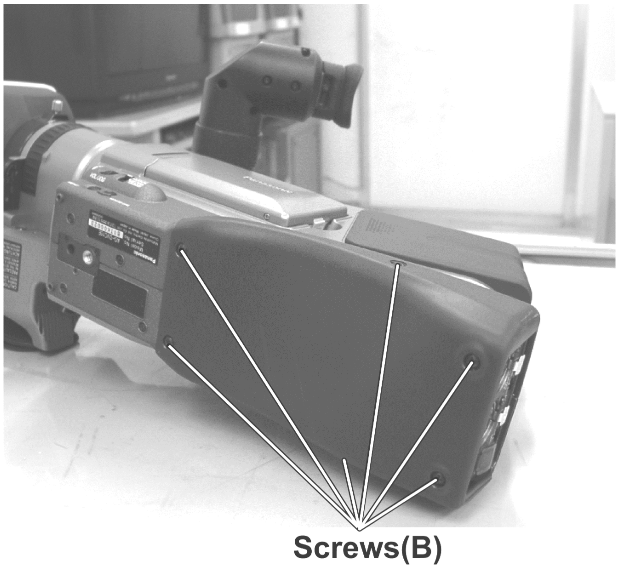
1. Removal of the Face Panel

1. Unscrew the 2 screws (A) and remove the Face Panel.

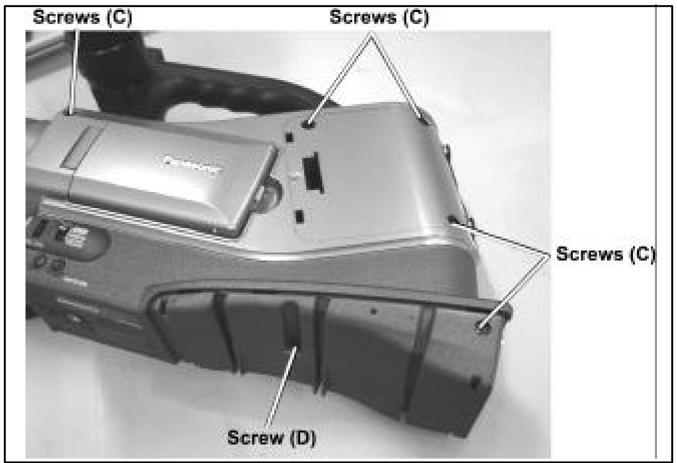


2. Removal of the Shoulder Pad

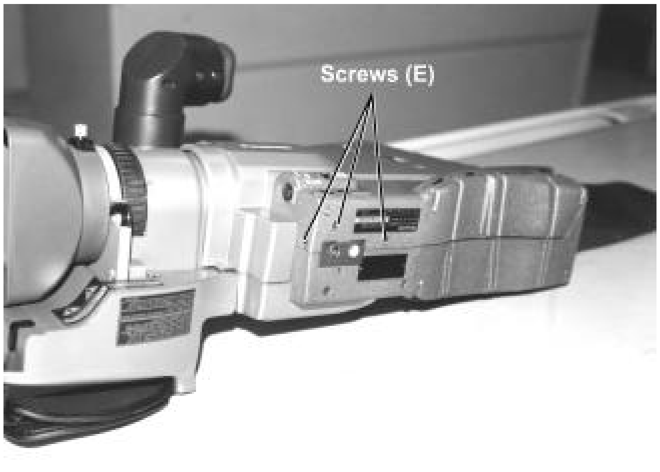
1. Unscrew the 6 screws (B) and remove the Shoulder Pad



3. Removal of the Right Side Cover


Screws (C)
Screws (C)
Screws (C)
Screw (D)

1. Unscrew the 5 screws (C).
2. Unscrew a screw (D).



3. Unscrew the 3 screws (E) and open the Right Side Cover carefully.

Note : Be careful not to damage the wires.

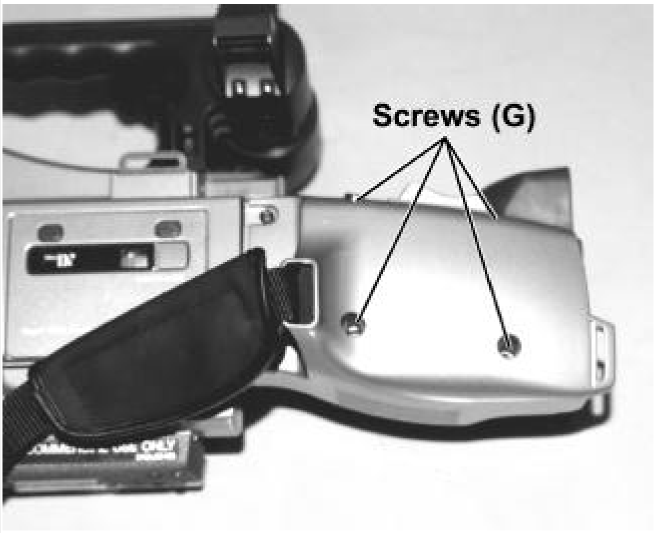
4. Disconnect the connector (P2001, P2005), and remove the Left Side Cover.

4. Removal of the Hood Cap

1. Unscrew the screws and remove Hood Cap.

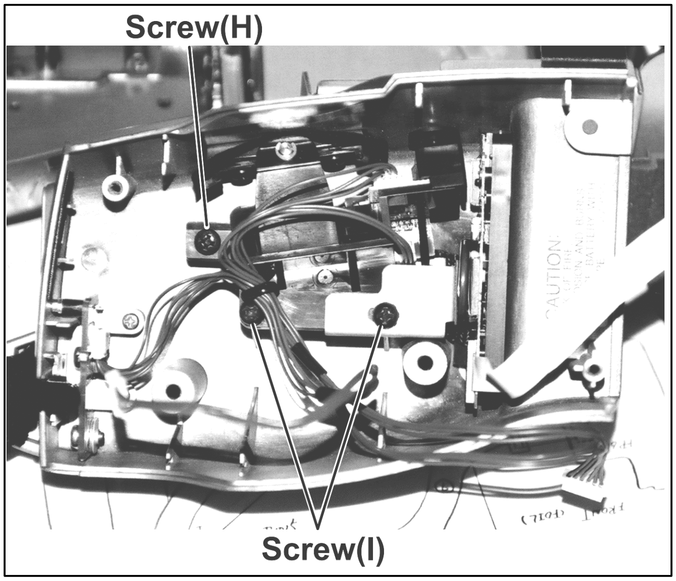
5. Removal of the Grip Cover Unit

1. Unlock the Grip Belt, unscrew 4 screws (G) and open Grip Cover Unit.
2. Remove the Shield Plate and disconnect the connector (P1005, P1007, P1023) then remove Grip Cover Unit.

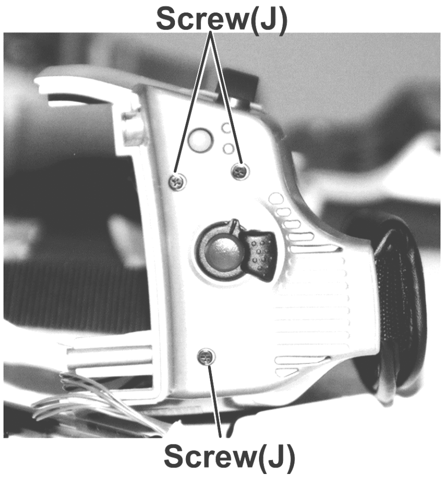


6. Removal of the Operation C.B.A.

(For the battery replacemant)



1. Unscrew a screw (H) and 2 screws (I).

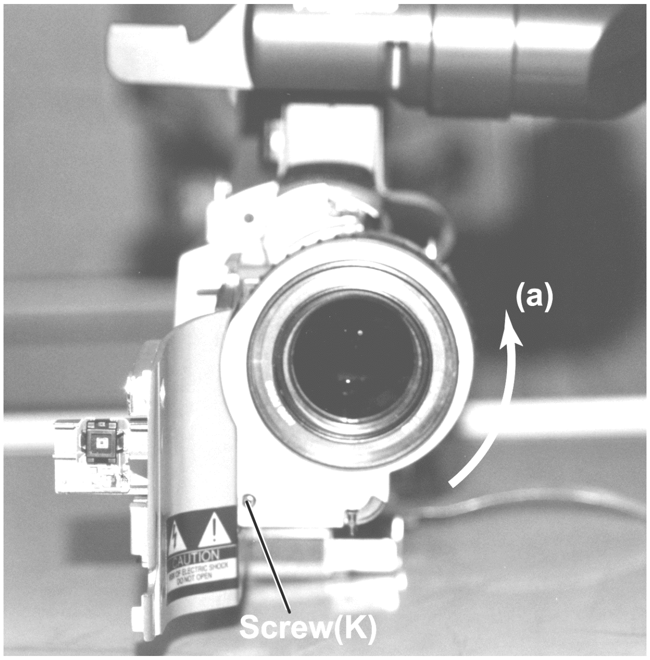


2. Unscrew 3 screw (J) and remove the Operation C.B.A.

Caution : Refer to service information for the backup battery replacement procedure.

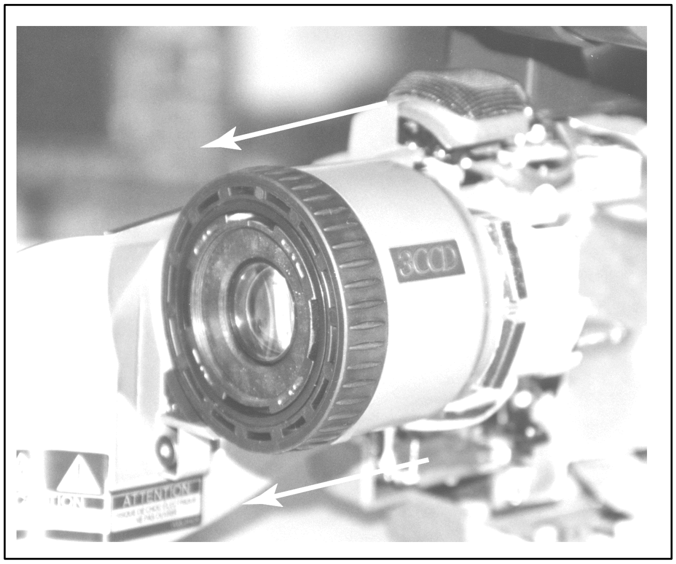
7. Removal of the ND Filter Unit

1. Unscrew a screw (K) and turned (a) counterclockwise then remove the ND Filter Unit.



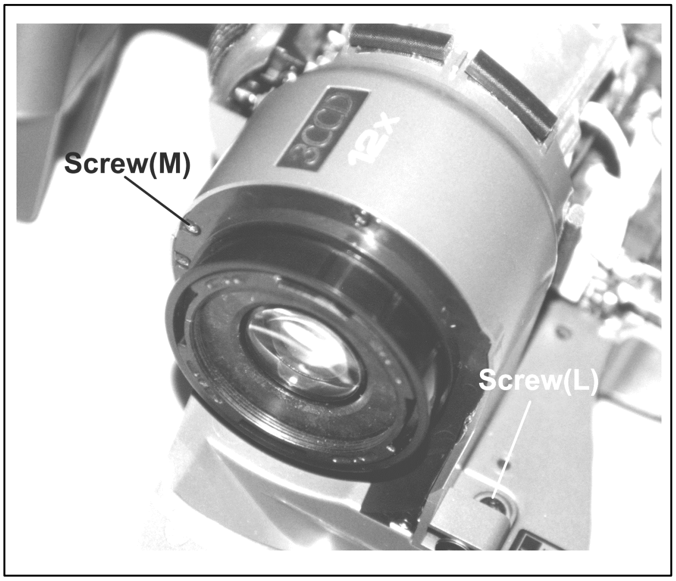
8. Removal of the Focus Ring

1. Pull out the Focus Ring as arrow shows.



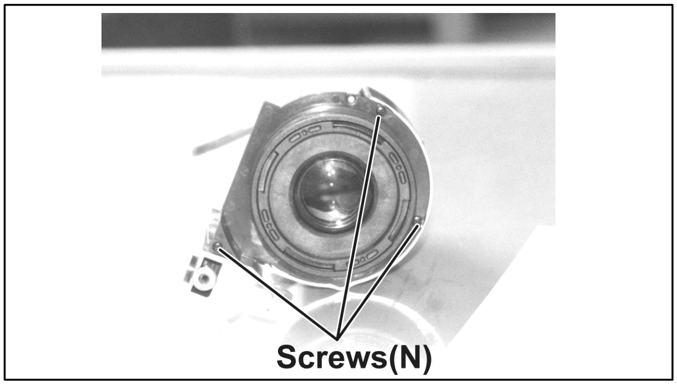
9. Removal of the Front Unit

1. Unscrew a screw (L) and a screw (M).
2. Disconnect the connector (P2501) on the AWT C.B.A.
3. Disconnect the connector (P1016) on the Mother C.B.A. and pull out the Front Unit.


Screw(M)
Screw(L)

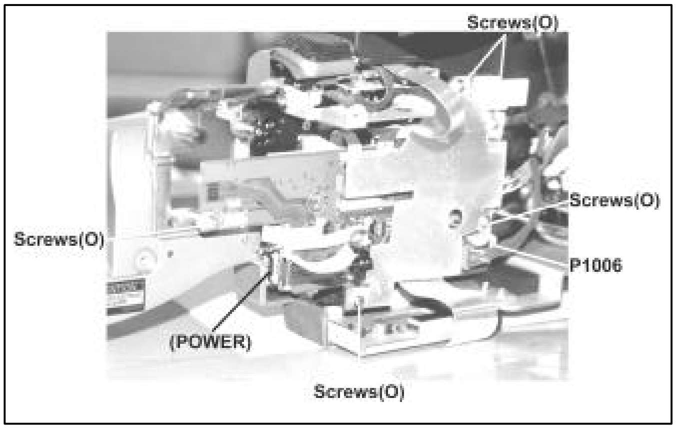
10.Removal of the Lens Case

1. Unscrew the 3 screws (N) and remove the Lens Case.



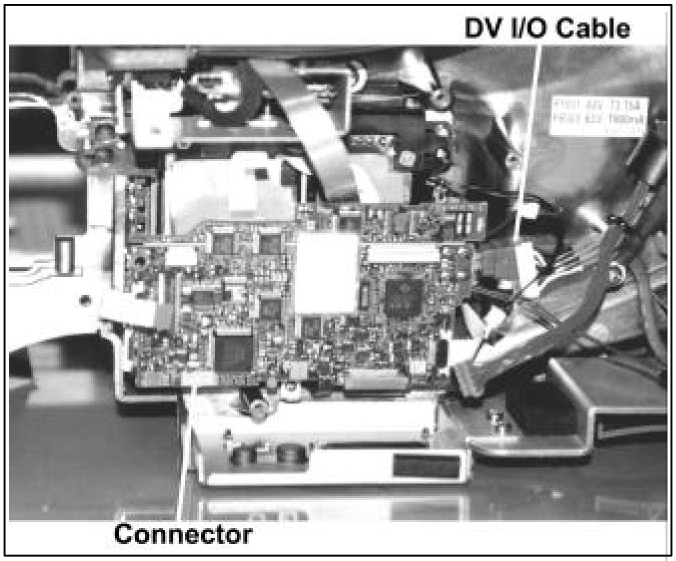
11.Removal of the Mother C.B.A.

1. Unscrew the 5 screws (O) and remove Shield Cover.
2. Disconnect the 8 connectors (P1004, P1006, P1008, P1009, P1014, P1015, P1021 and Connector of Mother C.B.A).
3. Lift up and remove Mother C.B.A from the VTR Main C.B.A.

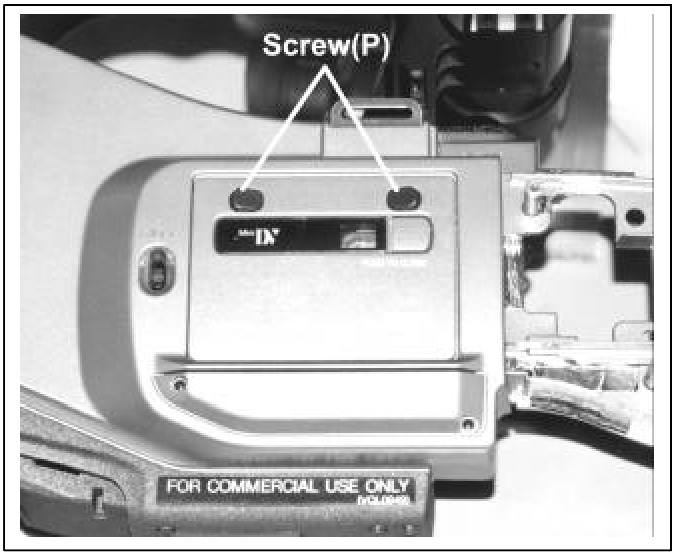

Screws(O)
Screws(O)
Screws(O)
P1006
(POWER)
Screws(O)

12.Removal of the VTR Main C.B.A.

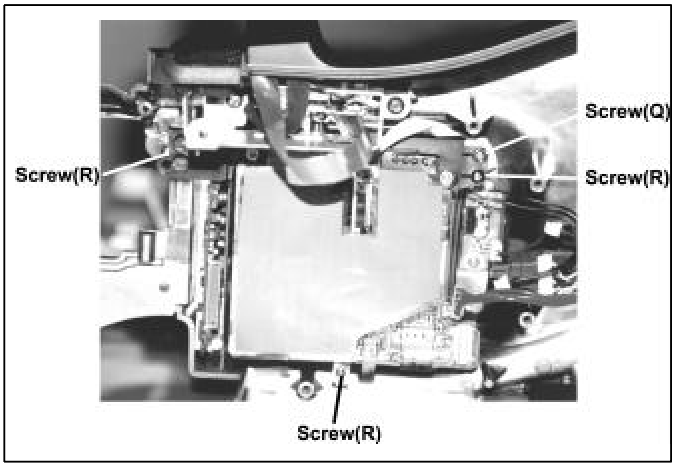
1. Disconnect the DV I/O Cable and lift up the VTR Main C.B.A vertically.
2. Disconnect the connector and remove the VTR Main C.B.A.


DV I/O Cable
Connector

13.Removal of the Mechanical Unit

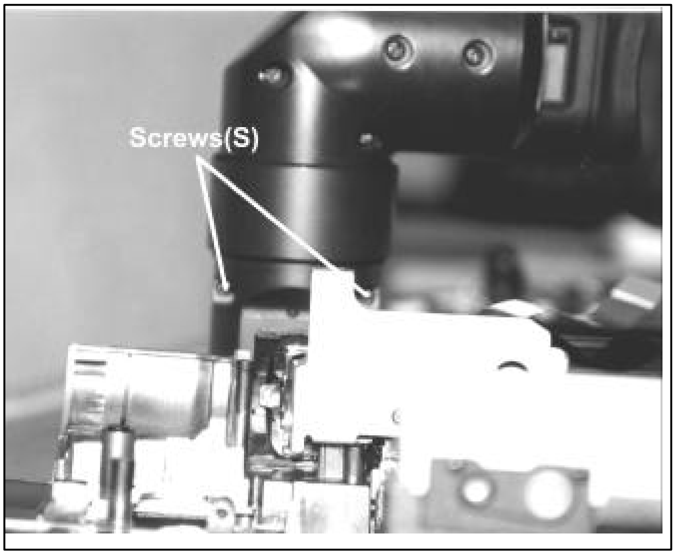

Screw(P)
FOR COMMERCIAL USE ONLY

1. Take off the Blind Cover and unscrew the 2 screws (P), then remove the Cassette Cover.
2. Unscrew a screw (Q), and 3 screws (R) and then remove the Mechanical Unit.

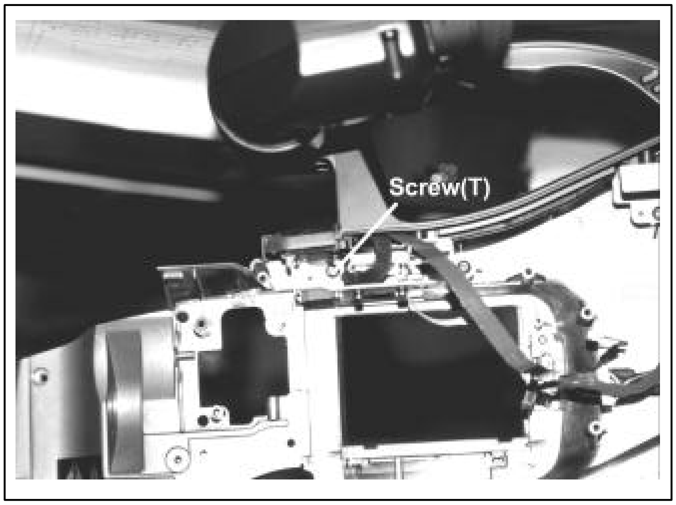

Screw(Q)
Screw(R)
Screw(R)
Screw(R)

14.Removal of the EVF

1. Unscrew the 2 screws (S).

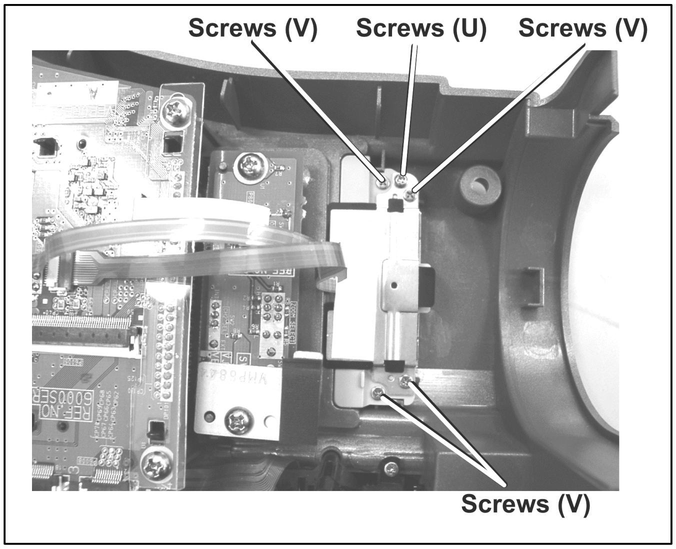


2. Unscrew the screw (T) and remove the EVF.



15.Removal of the LCD Unit

1. Unscrew a screw (U) and 4 screws (V) and then remove the LCD Unit.


Screws (V)
Screws (U)
Screws (V)
Screws (V)

Note : Assemble procedures are reverse of the disassembly procedures.

SERVICE INFORMATION

1. EXTENDER CABLES

Use the extender cable as shown in the table below for checking and servicing the unit.

Part No.	Extender Cable	Quantity	Connection Between	No.
VFK1389	26Pin Extender Cable	1	Lens Unit/Camera Sub PP101	1
VFK1311	80Pin Extender Cable	1	Camera Main PP301/Mother P1012	2-1
VFK1311	80Pin Extender Cable	1	Power PP1001/VTR Main PS1001	2-2
VFK1311	80Pin Extender Cable	1	VTR Main PS3002/Mother P1013	2-3
VFK1387	30Pin Extender Cable	1	Camera Main PP302/Mother P1010	3-1
VFK1387	30Pin Extender Cable	1	VTR Main PS3001/Mother P1011	3-2
VFK1388	12Pin Extender Cable	1	Camera Main FP305/Mother P1001	4
VFK1367	50Pin Extender Cable	1	VTR Main FP2001/Drive PP2001	5
VFK1176	13Pin Extender Cable	1	Front FP4801/Mother P1015	6-1
VFK1176	13Pin Extender Cable	1	VTR Main FP4001/Mother P1014	6-2
VFK1286	16Pin Extender Cable	1	Operation FF6701/Mother P1005	7-1
VFK1286	16Pin Extender Cable	1	VTR Main FP6002/Mother P1006	7-2
VFK1286	16Pin Extender Cable	1	Power Sub P1702/Mother P1502	7-3
VFK1286	16Pin Extender Cable	1	Jack P4802/Mother P1505	7-4
VFK1173	14Pin Extender Cable	1	Power FP1001/Mother	8-1
VFK1173	14Pin Extender Cable	1	VTR Main FP6001/Mother P1004	8-2
VFK1282	22Pin Extender Cable	1	Lens Unit/Camera Main FP701	9
VFK1284	24Pin Extender Cable	1	HR Amp/VTR Main FP3201	10
VFK1365	70Pin Extender Cable	1	VTR Main PP3002/Mother P1018	11
VFK0913	18Pin Extender Cable	1	EVF INT P9001/Mother P1021	13

The numbers (No.) shown in the above table are related with the cable reference number in figure S2 and S3.

Fig.S1

2. CONNECTION OF EXTENDER CABLES

1. To be careful for unplugging or plugging connectors.
2. Use a grounded ESD wrist strap while disassembling the camera portion.

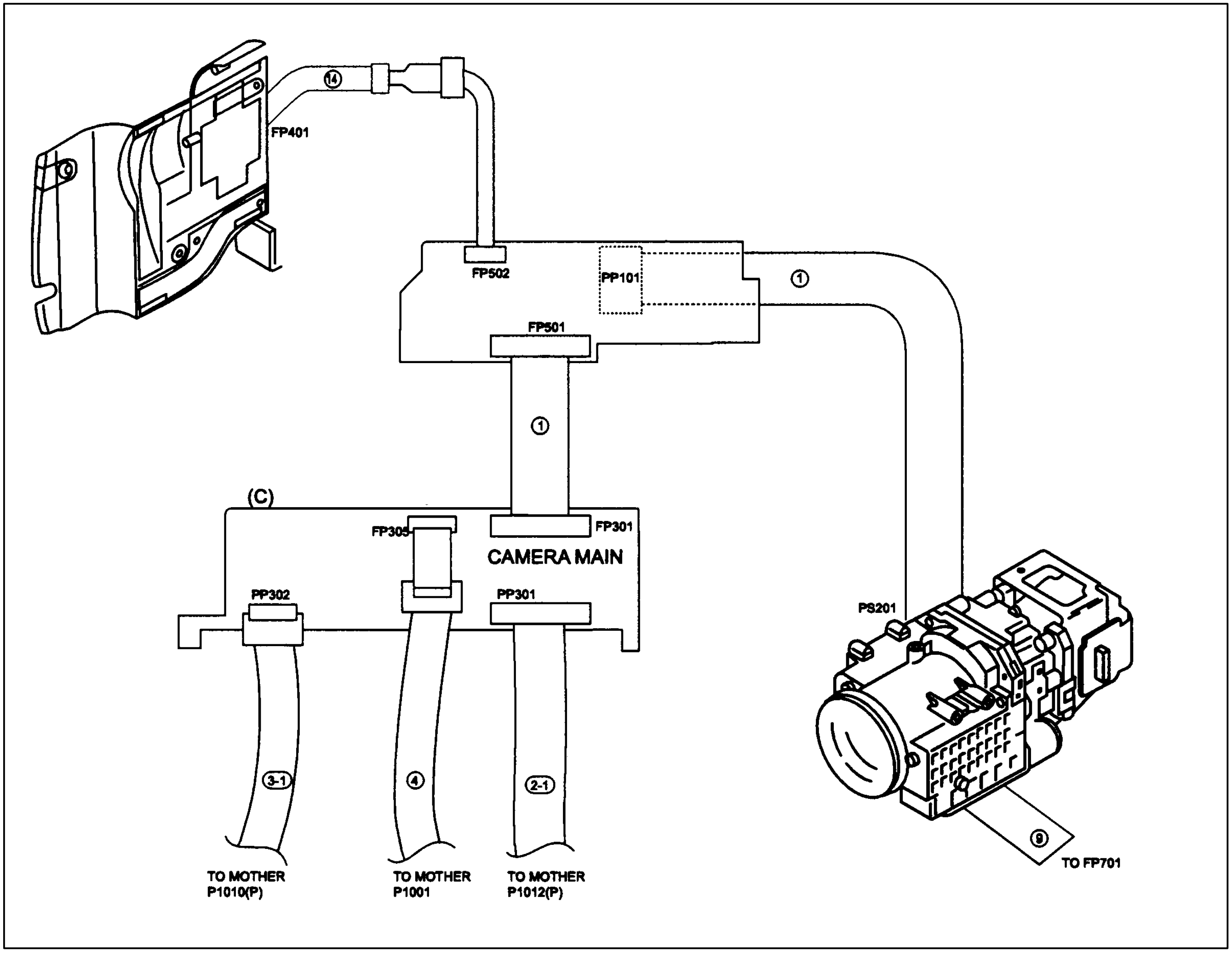

⑭
FP401
FP502
PP101
①
FP501
①
(C)
FP305
FP301
CAMERA MAIN
PP302
PP301
PS201
3-1
④
2-1
⑨
TO FP701
TO MOTHER
P1010(P)
TO MOTHER
P1001
TO MOTHER
P1012(P)

Fig.S2

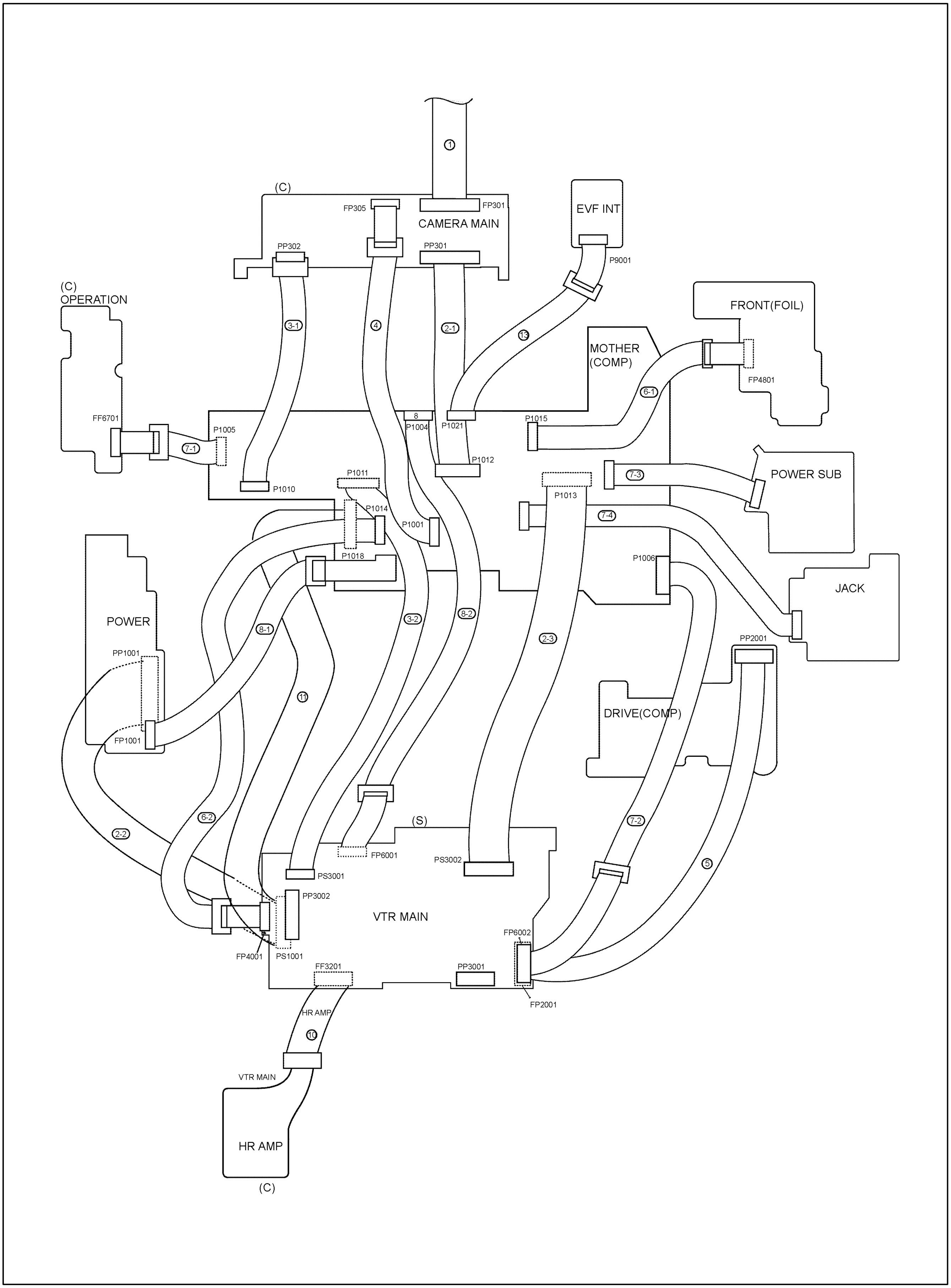
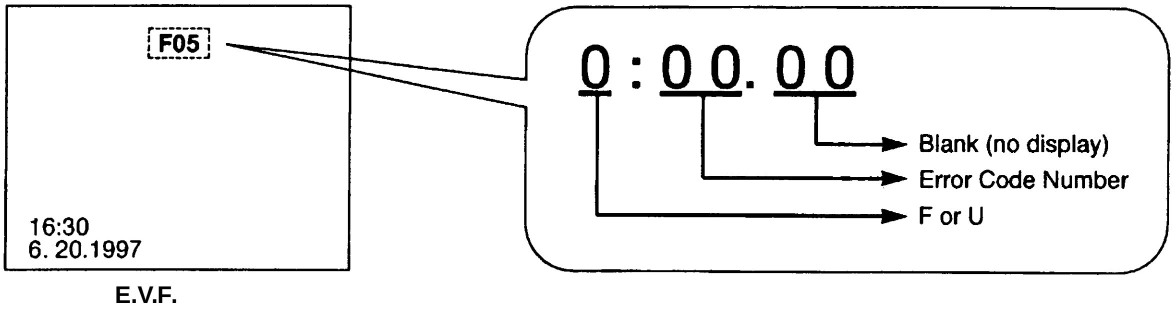

①
(C)
FP305
FP301
CAMERA MAIN
EVF INT
PP302
PP301
P9001
(C)
OPERATION
3-1
④
2-1
⑬
FRONT(FOIL)
MOTHER
(COMP)
FP4801
6-1
FF6701
P1005
7-1
8
P1004
P1021
P1015
P1012
P1010
P1011
P1014
P1001
P1018
P1013
7-3
POWER SUB
7-4
P1006
JACK
POWER
PP1001
8-1
3-2
8-2
2-3
PP2001
⑪
DRIVE(COMP)
FP1001
2-2
6-2
7-2
(S)
FP6001
PS3002
⑤
PS3001
PP3002
VTR MAIN
FP6002
FP4001
PS1001
FF3201
PP3001
FP2001
HR AMP
⑩
VTR MAIN
HR AMP
(C)

Fig.S3

3. SERVICE MODE

When some problem occurred, the error code is displayed on the EVF.

At the same time the camera LED is flashed according to the error code table as shown below.



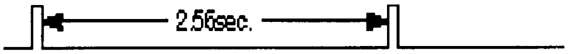
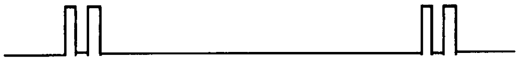
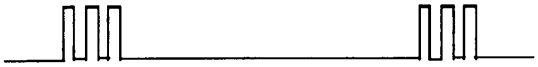
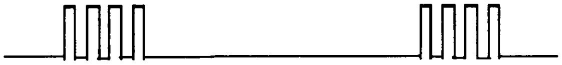
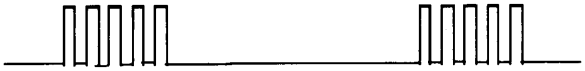
Error Code	Cause	Timing of LED Flashing and Power Supply OFF Timing
F01	Tale-Up Reel Rock	After one minute of flashing, the power supply will be stopped. 
F02	Supply Reel Rock	After one minute of flashing, the power supply will be stopped. 
F03	Unloading Lock	After one minute of flashing, the power supply will be stopped. 
F04	Loading Lock	After one minute of flashing, the power supply will be stopped. 
F05	Cylinder Lock	After one minute of flashing, the power supply will be stopped. 
F31	Data Transmission Error	---
F51	Focus Motor Lock	The camera LED flashes at 1 Hz.
F52	Zoom Motor Lock	The camera LED flashes at 1 Hz.
U10	Dew Detection	After 18 second of flashing at 1 Hz, the power supply will be stopped.
U11	Head Clogging	---

Fig.S4

Note: Error Code (F01 thorough F05 and U10) will be displayed again with power switch OFF and ON while the battery remains (Once the battery is removed or discharged, the error code is vanished.)

4. SERVICING FIXTURES AND TOOLS

The following servicing tools is required for mechanical, electrical adjustments and servicing.

4-1. Video and Camera Adjustment Tools

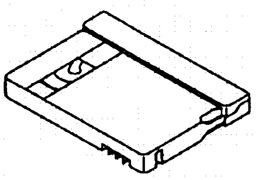
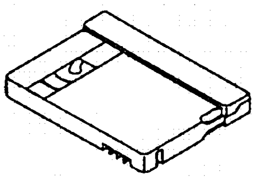
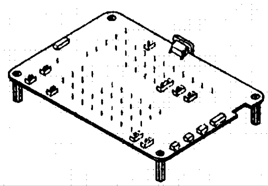
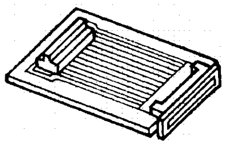
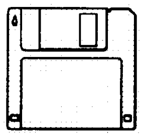
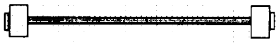
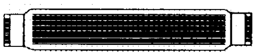
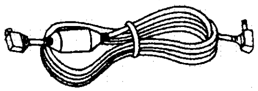
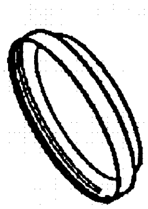
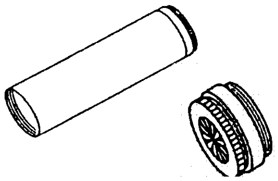
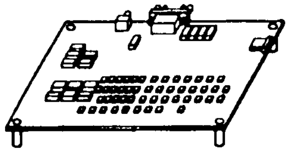
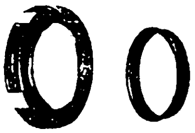
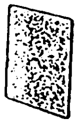
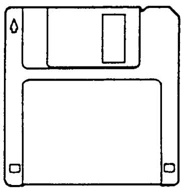
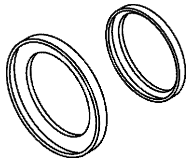
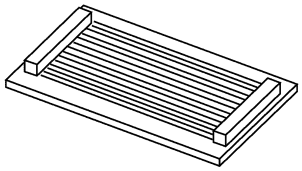
VFM3110EDS Alignment Tape (Color Bar) 	**VFK1217** Tape End/Beg.Sensor. Cassette 	**VFK1308P** Measuring Board 	**VFK1309** EVR Connector Board 
VFK1694 EVR Adjustment Software 	-------------------- Ordinary 9pin RS-232C Cross Cable 	**VFK1317** 30pin Flat Cable  (Adjustment system needs 2pcs. of this cable)	**VJA0941** DC Cable 
VFK1164TAR43 43mm Attachment Ring 	**VFK1164TCM01** Collimator Set (with Focus Chart) 	**VFK1409S** Measuring Board 	**VFK1345** CC Filter Holder **VFK1346** CC Filter Holder Step Down Ring 
VFK1341 (LB40) **VFK1343** (LA40) **VFK1347** (LB120) **VFK1695** (LBA4) **VFK1696** (LBA8) **VFK1697** (LBB4) CC Filter 	**VFK1481B** LISTA SOFTWARE 	**VFK1659** Step-up Ring (43mm→49mm) **VFK1660** Step-up Ring (49mm→62mm) 	**VFK1694** EVR Extender board 

Fig.S5

4-2. Mechanical Adjustment Tools

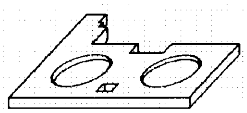
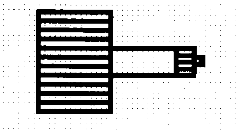
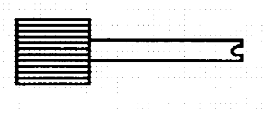
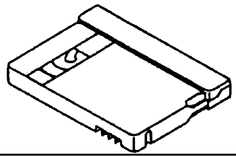
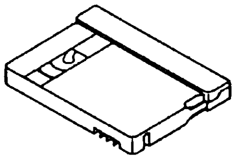
VFK1233 Mech. Neutral Plate 	**VFK1266** Gear Driver 	**VFK1149** Post Driver 	**VFM3110EDS** Alignment Tape (Color Bar) 
VFM3000EDS Alignment Tape (Linearity) 			

Fig.S6

4-3. Extender Cables

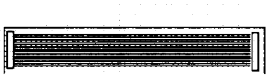
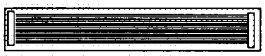
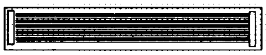
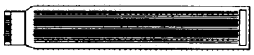
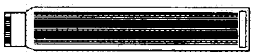
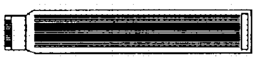
VFK1365 70pin Extender Cable 	**VFK1367** 50pin Extender Cable 	**VFK1284** 24pin Extender Cable 	**VFK1311** 80pin Extender Cable
VFK1389 26pin Extender Cable 	**VFK1387** 30pin Flat Cable 	**VFK1286** 16pin Extender Cable 	**VFK1282** 22pin Extender Cable 
VFK0913 18pin Extender Cable 	**VFK1175** 16pin Extender Cable 	**VFK1176** 13pin Extender Cable 	**VFK1173** 14pin Extender Cable 
VFK1388 12pin Extender Cable 	**VFK1428** 8pin Extender Cable 		

Fig.S7

4-4. Summary Table of Servicing Fixtures and Tools

Parts No.	JIG & EQUIPMENT	AG-EZ1	AG-EZ10	AG-EZ30	AG-DVC15	PURPOSE	REMARK
VFK1173	14pin Extender Cable	Y	N	Y	Y	Circuit Board Extension	
VFK1175	16pin Extender Cable	Y	N	Y	Y	Circuit Board Extension	
VFK1176	13pin Extender Cable	Y	N	Y	Y	Circuit Board Extension	
VFK1149	Post Driver	Y	Y	Y	Y	Tape Post Height Adjustment	
VFM3000EDS	Alignment Tape	Y	Y	Y	Y	Tape Interchangeability Adjustment	
VFM3110EDS	Alignment Tape	Y	Y	Y	Y	Electrical Adjustment	
VFK1266	Gear Driver	Y	Y	Y	Y	Mechanical Maintenance	
VFK1233	Mech. Neutral Plate	Y	Y	Y	Y	Mechanical Maintenance	
VFK1164TCM01	Collimator Set (Infinity Lens)	Y	Y	Y	N	Camera Adjustment	
VFK1164TFGS1	Gray Scale Chart	Y	N	Y	N	Camera Adjustment	
VFK1164TFWC1	White Chart	Y	Y	Y	N	Camera Adjustment	
VFK1164TFCB1	Color Chart	Y	Y	Y	N	Camera Adjustment	
VFK1217	Tape End/Beg Detect Cassette	Y	Y	Y	Y	Sensor Sensitivity Adjustment	
VFK1279	Capstan Adj. Fixture	Y	Y	Y	N	Capstan Slant Adjustment	
VFK1164TAR3A	30.5mm Attachment Ring	N	Y	N	N	Camera Adjustment	
VFK1308P	Measuring Board	N	Y	Y	Y	Test point Board and PC I/F	
VFK1309	EVR Connector Board	N	Y	Y	Y	Connection for PC Adjustment	
VFK0374	C12 Color Conversion Filter	Y	Y	Y	N	Camera Adjustment	
VFK0375	C2 Color Conversion Filter	Y	Y	Y	N	Camera Adjustment	
VFK0547	C8 Color Conversion Filter	Y	Y	Y	N	Camera Adjustment	
VFK1389	EVR Adjustment Software	N	Y	N	N	PC Electrical Adjustment System	
VFK0929	12pin Extender Cable	N	Y	N	N	Circuit Board Extension	
VFK0977	20pin Extender Cable	N	Y	N	N	Circuit Board Extension	
VFK1364	14pin Extender Cable	N	Y	N	N	Circuit Board Extension	
VFK1365	70pin Extender Cable	N	Y	Y	Y	Circuit Board Extension	
VFK1311	80pin Extender Cable	N	Y	Y	Y	Circuit Board Extension	
VFK1367	50pin Extender Cable	N	Y	Y	Y	Circuit Board Extension	
VFK1284	24pin Extender Cable	N	Y	Y	Y	Circuit Board Extension	
VFK1317	30pin Flat Cable	N	Y	Y	Y	Between Meas. & Con. Boards	
VJA0941	DC Cable	N	Y	Y	Y	Power Supply for Measuring Board	
VJA0973	Multi Cable	Y	Y	Y	N	A/V Monitoring and WFM Measure	
VFK1164TAR43	43.0mm Attachment Ring	N	N	Y	Y	Camera Adjustment	
VFK1388	12pin Extender Cable	N	N	Y	Y	Circuit Board Extension	
VFK1389	26pin Extender Cable	N	N	Y	Y	Circuit Board Extension	
VFK1387	30pin Flat Cable	N	N	Y	Y	Circuit Board Extension	
VFK1286	16pin Extender Cable	N	N	Y	Y	Circuit Board Extension	
VFK1282	22pin Extender Cable	N	N	Y	Y	Circuit Board Extension	
VFK1391	EVR Adjustment Software	N	Y	Y	N	PC Electrical Adjustment System	
VFK0913	18pin Extender Cable	N	N	Y	Y	Circuit Board Extension	
VFK0913	8pin Extender Cable	N	N	Y	Y	Circuit Board Extension	
VFK1659	Step-Up Ring(43mm-49mm)	N	N	N	Y	Camera Adjustment	
VFK1660	Step-Up Ring(49mm-62mm)	N	N	N	Y	Camera Adjustment	
VFK1693	EVR Adjustment Software	N	N	N	Y	PC Electrical Adjustment System	
VFK1341	CC Filter (LB40)	N	N	N	Y	Camera Adjustment	
VFK1343	CC Filter (LA40)	N	N	N	Y	Camera Adjustment	
VFK1347	CC Filter (LB120)	N	N	N	Y	Camera Adjustment	
VFK1695	CC Filter (LBA4)	N	N	N	Y	Camera Adjustment	
VFK1696	CC Filter (LBA8)	N	N	N	Y	Camera Adjustment	
VFK1697	CC Filter (LBB4)	N	N	N	Y	Camera Adjustment	
YWV2100RB98	Color Chip Chart	N	N	N	Y	Camera Adjustment	
VFK1345	CC Filter Holder	N	N	N	Y	Camera Adjustment	
VFK1346	CC Filter Holder Step Down Ring	N	N	N	Y	Camera Adjustment	
VFK1481B	LISTA Software	N	N	N	Y	Mechanical Maintenance	
VFK1694	EVR Extender board	N	N	N	Y		

5. LITHIUM BATTERY

5-1. Replacement Procedure

1. Remove the Rear Operation C.B.A.. (Refer to item 3-4-5 & 3-4-6 of the Disassembly Procedures).
2. Unsolder the Lithium battery “VL2020/1HF” and then replace with the new one. (See Figure S11).

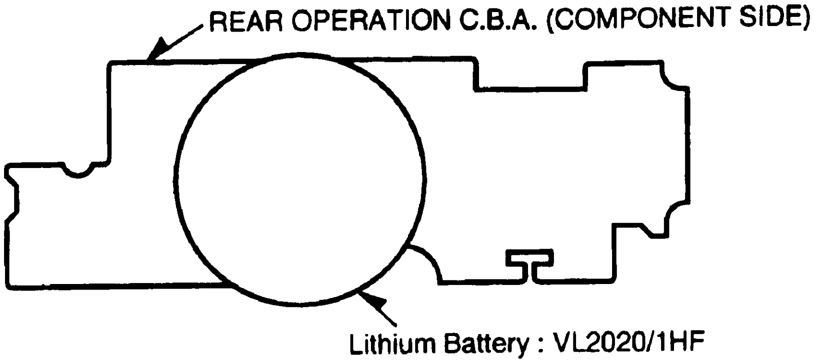

REAR OPERATION C.B.A. (COMPONENT SIDE)
Lithium Battery : VL2020/1HF

Fig.S9

NOTE:

The lithium battery is a critical component (Type No. : VL2020/1HF Manufactured by Panasonic).

It must never be subjected to excessive heat of discharge.

It must therefore only be fitted in equipment designed specifically for its use.

Replacement batteries must be of the same type and manufacture.

They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.

Do not attempt to re-charge the old battery or re-use it for any other purpose.

It should be disposed of in waste products destined for burial rather than incineration.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the equipment manufacturer.
Discard used batteries according to manufacture’s instructions.

SECTION 9

EXPLODED VIEWS
&
REPLACEMENT PARTS LIST

Note:

1. *Be sure to make your orders of replacement parts according to this list.
2. Unless otherwise specified, all resistors are in OHMS, K=1,000 OHMS, all capacitors are in MICROFARADS (µF), P=µµF.
3. The P.C. Board untils marked with "■" shown below the main assembled parts.
4. The parts marked with Ⓔ on the exploded view show the electric parts.
5. IMPORTANT SAFETY NOTICE
   Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.
6. The marking (RTL) indicates the retention time is limited for this item.
   After the diacontinuation of this assembly in production, it will no longer be available.

CONTENTS

FRAME & CASING PARTS ASSEMBLY (1)....................PRT-1
FRAME & CASING PARTS ASSEMBLY (2)....................PRT-4
CAMERA LENS ASSEMBLY....................PRT-6
VCR MECHANISM ASSEMBLY (1)....................PRT-7
VCR MECHANISM ASSEMBLY (2)....................PRT-8
LCD ASSEMBLY....................PRT-9
PACKING PARTS ASSEMBLY....................PRT-10
ELECTRICAL REPLACEMENT PARTS LIST....................PRT-11

SERVICING FIXTURES & TOOLS

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VFK1173	14PIN EXTENDER CABLE	1	
2	VFK1175	16PIN EXTENDER CABLE	1	
3	VFK1176	13PIN EXTENDER CABLE	1	
4	VFK1149A	POST DRIVER	1	
5	VFM3000EDS	ALIGNMENT TAPE	1	
6	VFM3110EDS	ALIGNMENT TAPE	1	
7	VFK1266	GEAR DRIVER	1	
8	VFK1233	MECH. MEUTRAL PLATE	1	
9	VFK1217	TAPE END/BEG DET CASSETTE	1	
10	VFK1308P	MEASURING BOARD	1	
11	VFK1309	EVR CONNECTOR BOARD	1	
12	VFK1365	70PIN EXTENDER CABLE	1	
13	VFK1311	80PIN EXTENDER CABLE	1	
14	VFK1367	50PIN EXTENDER CABLE	1	
15	VFK1284	24PIN EXTENDER CABLE	1	
16	VFK1317	30PIN FLAT CABLE	1	
17	VJA0941	DC CABLE	1	
18	VFK1164TAR43	43.0MM ATTACHMENT RING	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
19	VFK1388	12PIN EXTENDER CABLE	1	
20	VFK1389	26PIN EXTENDER CABLE	1	
21	VFK1387	30PIN FLAT CABLE	1	
22	VFK1286	16PIN EXTENDER CABLE	1	
23	VFK1282	22PIN EXTENDER CABLE	1	
24	VFK0913	18PIN EXTENDER CABLE	1	
25	VFK1659	STEP-UP RING (43MM-49MM)	1	
26	VFK1660	STEP-UP RING (49MM-62MM)	1	
27	VFK1694	EVR ADJUSTMENT SOFTWARE	1	
28	VFK1341	CC FILTER (LB40)	1	
29	VFK1343	CC FILTER (LA40)	1	
30	VFK1347	CC FILTER (LB120)	1	
31	YWV2100RB98	COLOR CHIP CHART	1	
32	VFK1345	CC FILTER HOLDER	1	
33	VFK1346	CC FILTER HOLDER RING	1	

FRAME & CASING PARTS ASSEMBLY (1)

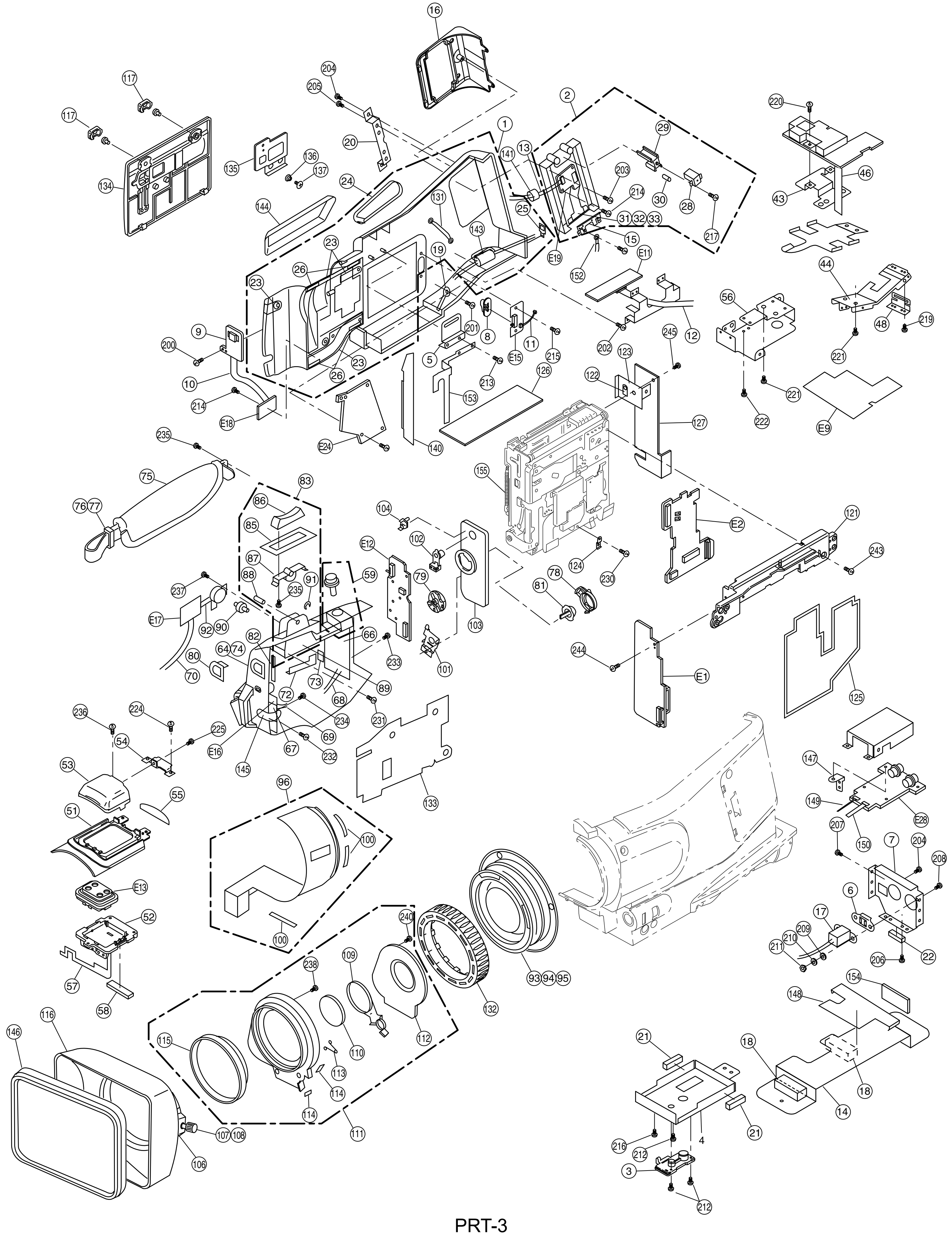
Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VYK9889	SIDE CASE L ASS'Y	1	
2	VYK9757	BATTERY HOLDER ASS'Y	1	
3	VMD2796	TRIPOD FRAME	1	
4	VMP6654	TRIPOD FRAME ANGLE	1	
5	VMP6652	BELT HOOK ANGLE (F)	1	
6	VMC1685	CONNECTOR EARTH ANGLE	1	
7	VMP6847	DV TERMINAL ANGLE	1	
8	VGU7575	EJECT BUTTON	1	
9	VYQ1447	AWT SENSOR ASS'Y	1	
10	VWJ08E5070L0	FFC	1	
11	VEE0M08	EJECT CABLE	1	
12	VEE0N82	JACK CABLE	1	
13	VEE0N80	BATTERY CABLE	1	
14	VMP6848	WEIGHT ANGLE	1	
15	VMP6742	BATTERY TERMINAL ANGLE	1	
16	VGQ5990	BATTERY CASE COVER	1	
17	VWK0175	DV CABLE	1	
18	VMT1182	CUSHION	2	
19	SHR330	CLAMPER	1	
20	VMP6749	BATTERY ANGLE	1	
21	VMT0776	GASKET (F)	2	
22	VMT0876	GASKET	1	
23	VSC5154	SIDE CASE SHIELD SHEET L	1	
24	VJF1417	CONNECTOR CAP	1	
25	VJF1418	DV CAP	1	
26	VMT0906	GASKET	4	
28	VGQ6037	BATTERY LOCK HOLDER	1	
29	VGU8749	BATTERY LOCK BUTTON	1	
30	VMB3314	DOOR LOCK SPRING	1	
31	VEK9224	BATTERY TERMINAL ASS'Y	1	
32	K4ZZ04000026	BATTERY TERMINAL	1	
33	VWJ1465	BUS FLEXIBLE ASS'Y	1	
43	VMP6666	MIC P.C.B. HOLDER ANGLE	1	
44	VMP6650	HEDLE HOLDER ANGLE (R)	1	
46	VWJ13E5070L0	FFC	1	
48	VMP6653	BELT HOOK ANGLE (R)	1	
51	VKMS2489	MIC CASE (A)	1	
52	VKMS2518	MIC CASE (B)	1	
53	VYQ1521	MIC NET ASS'Y	1	
54	VMP5466	FRONT ANGLE	1	
55	VGQ4750	MIC SHEET	1	
56	VMP6649	HANDLE HOLDER ANGLE (F)	1	
58	VMT1192	CCD HOLDER CUSHION	1	
59	VXU1598	PHOTO SHOT BUTTON ASS'Y	1	
64	VYK9729	GRIP COVER ASS'Y	1	
66	VEK9259	GRIP OP P.C.BOARD K	1	
67	VMP6760	REMOCON P.C.B. FIX ANGLE	1	
68	VWJ16E5130L0	FFC	1	
69	VEE0M10	REMOCON SENSOR CABLE	1	
70	VEE0M11	ZOOM PHOTO CABLE	1	
72	VMP6796	POWER P.C.BOARD ANGLE	1	
73	VMZ3127	BATTERY INSULATION SHEET	1	
75	VFB0209	GRIP BELT	1	
76	VMG1373	BELT BLIND CAP	1	
77	VMP6741	BEL FIX ANGLE	1	
78	VGQ4494	S/S LEVER	1	
79	VGQ4272	S/S BUTTON PIECE	1	
80	VKW2419	AWT WINDOW	1	
81	VGU7577	S/S BUTTON	1	
82	VMT0906	GASKET	1	
83	VYQ2110	ZOOM PLATE ASS'Y	1	
85	VMT1197	ZOOM BLIND SHEET	1	
86	VGU8745	T/W BUTTON PLATE	1	
87	VGQ6035	ZOOM LEVER	1	
88	VMS6855	ZOOM SHAFT	1	
89	VGQ5992	GRIP SW BRACKET	1	
90	VGQ6046	ZOOM GEAR	1	
91	XUC2FP	E-RING	1	
92	VEK8453	ZOOM VR ASS'Y	2	
93	VXP1871	MF RING ASS'Y	1	
94	VGQ6044	MF RING BASE	1	
95	VSC5205	LENS COVER F SHIELD	1	
96	VYF2741	LENS CASE R ASS'Y	1	
100	VMT1201	SOFT GASKET	3	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
101	VMC1271	S/S CLICK SPRING	1	
102	VGU7576	VTR CHANGE BUTTON	1	
103	VGQ6071	OPERATION P.C.B. PLATE	1	
104	VGL0764	VTR CHANGE PANEL	1	
106	VFC3571	LENZ HOOD ASS'Y	1	
107	VHD1412	LENZ HOOD FIX SCREW	1	
108	XUC15FX	E-RING	1	
109	VGQ5993	ND HOLDER ASS'Y	1	
110	VDL1165	ND FILTER	1	
111	VYQ2091	ND FILTER ASS'Y	1	
112	VKM5517	NDF CASE (R)	1	
113	VMB3469	HOOK SPRING	1	
114	VMT1176	PAD	2	
115	VYQ2123	MC PROTECTOR	1	
116	VKF3305	HOOD CAP	1	
117	VGP4575	SCREW CAP	2	
121	VYK7875	MECH HOLDER ASS'Y	1	
122	EYHS77Y7	DEW SENSOR	1	
123	VMP6670	DEW HOLDER ANGLE	1	
124	VMP6667	MECH HOLDER ANGLE	1	
125	VMZ2708	MECH SHIELD BARRIER	1	
126	VGF0879	MECH SHIELD PLATE	1	
127	VGQ6149	DEW SENSOR PLATE	1	
131	VEE0N38	GND	1	
132	VMG1357	FOCUS RING	1	
133	VSC5219	GRIP SHIELD	1	
134	VYF2740	CASSETTE COVER ASS'Y	1	
135	VMA0H90	CASSETTE HOLDER BASE	1	
136	VMB3148	CASSETTE COVER SPRING	1	
137	VHD1105	SCREW	1	
140	VSC5204	POWER SHIELD	1	
141	J0KG00000011	FERRITE CORE	1	
143	VSQ0819	DC LINE CORE	1	J0KG00000013
144	VGP5438	CASSETTE COVER (LOWER)	1	
145	VKW2418	REMOTE CONTROL WINDOW	1	
146	VFC3571	LENS FOOD	1	
147	VMP6846	C.B.A. ANGLE	1	
148	VMP6850	WEIGHT ANGLE	1	
149	VEE0N79	CABLE	1	
150	VWJ16E5150L0	FLEXIBLE CABLE	1	
152	VEE0P60	EARTH CABLE	1	
153	VMP6923	EARTH ANGLE	1	
154	VMZ3181	INSULATION SHEET	1	
155	VXY1598	MECHANISM ASS'Y	1	
200	XTN2+4G	SCREW	1	
201	XTV3+6GFZ	SCREW	2	
202	XQN16+CJ3	SCREW	1	
203	XTV26+8G	SCREW	8	
204	XSN3+6FZ	SCREW	3	
205	XTV3+10G	SCREW	2	
206	XYN3+C6	SCREW	4	
207	XTB3+8FFZ	SCREW	1	
208	XSN26+12FZ	SCREW	2	
209	XWE26	WASHER	2	
210	XWA26B	WASHER	2	
211	XNG26EFXS	NUT	2	
212	XQN16+B5FZ	SCREW	3	
213	XQN2+CJ6FZ	SCREW	2	
214	XTN2+6G	SCREW	3	
215	XTN26+4G	SCREW	2	
216	XSB2+5FZ	SCREW	2	
217	XTN26+6B	SCREW	2	
219	XYN26+K6	SCREW	2	
220	XYN2+C6	SCREW	2	
221	XTV4+8G	SCREW	4	
222	XYN26+C6	SCREW	2	
224	XQN16+CJ5	SCREW	3	
225	XQN2+B25	SCREW	1	
226	XQN2+C4	SCREW	4	
230	XQN2+CJ6FZ	SCREW	7	
231	XTB3+10GFZ	SCREW	3	
232	XTN26+6J	SCREW	2	
233	XQN2+BJ4FZ	SCREW	3	

FRAME & CASING PARTS ASSEMBLY (1)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
234	XYN3+K6	SCREW	2	
235	XTB26+6GFZ	SCREW	4	
237	XQN2+BJ4	SCREW	3	
238	XQN2+CJ5	SCREW	3	
240	XQN2+AG4	SCREW	6	
243	VHD0866	SCREW	3	
244	XQN16+BJ4FZ	SCREW	1	
245	XYN3+K5	SCREW	1	
E1	VEP01801D	POWER C.B.A.	1	
E2	VEP02561A	DRIVE C.B.A.	1	
E9	VEP04684A	FRONT C.B.A.	1	
E10	VEP04778A	JACK C.B.A.	1	
E11	VEP06C24A	TOP OPERATION C.B.A.	1	
E12	VEP06C37A	REAR OPERATION C.B.A.	1	
E13	VEP04693A	MIC C.B.A.	1	
E15	VEP000R1A	EJECT C.B.A.	1	
E16	VEP000R3A	REMOTE CONTROL C.B.A.	1	
E17	VEP000R4A	GRIP ZOOM SW C.B.A.	1	
E18	VEP000R5A	AWT INT C.B.A.	1	
E19	VEP000R6A	BATTERY INT C.B.A.	1	
E22	VEP000S2A	PHOTO SHOT SW C.B.A.	1	
E24	VEP01896A	SUB POWER C.B.A.	1	
E28	VEP04777A	MIC AMP C.B.A.	1	

FRAME & CASING PARTS ASSEMBLY (1)



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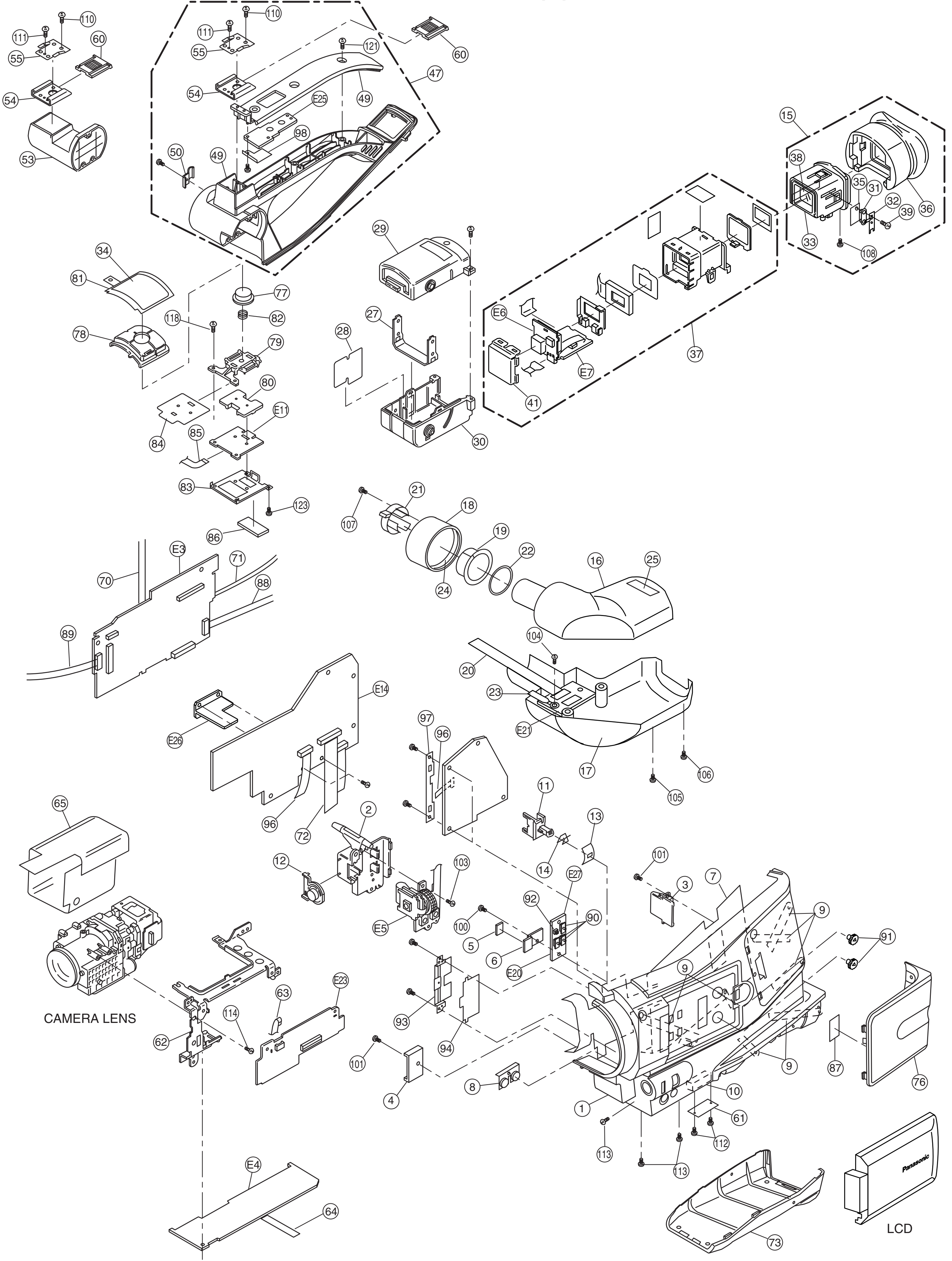
FRAME & CASING PARTS ASSEMBLY(2)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VYK9892	SIDE CASE R ASS'Y	1	
2	VGQS1014	C.B.A. HOLDER	1	
3	VYK7879	SPEAKER HOLDER ASS'Y	1	
4	VMP6661	OPERATE BUTTON ANGLE	1	
5	VMT1192	CCD HOLDER CUSHION	1	
6	VMP6844	CCD HOLDER ANGLE	1	
8	VGU8746	MENU BUTTON	1	
10	VMT0771	GASKET (A)	1	
11	VGU7776	AUTO/MANUAL KNOB	1	
12	VGU7777	FOCUS BUTTON	1	
13	VGQ4813	KNOB COVER	1	
14	VMB3197	KNOB COVER SPRING	1	
15	VYK9888	EVF HOLD CASE ASS'Y	1	
16	VKM5614	EVF HOLD CASE (UPPER)	1	
17	VKM5615	EVF HOLD CASE (LOWER)	1	
18	VGQ5994	EVF RING	1	
19	VGQ6067	EVF LOCK RING	1	
20	VEE0N39	SHIELD FLEXIBLE	1	
21	VMX3075	BUSH	1	
22	VMG1372	O-RING	1	
23	VEE0N39	GND	1	
24	VMT1202	VF RING TAPE	1	
25	VMZ3140	VF UPPER SPACER	1	
27	VMP5464	EVF CASE ANGLE	1	
28	VGQ4624	EVF BARRIER	1	
29	VKMS2495	EVF UPPER CASE	1	
30	VYKS1861	EVF LOWER CASE ASS'Y	1	
31	VGQ4585	EVF ROTARY HOLDER	1	
32	VMC1365	EVF ROTARY SPRING	1	
33	VGK2684	EVF HOLD CASE	1	
34	VGQ6068	EVF THRUST BEAD	1	
35	VGQ6096	EVF SLIDE PLATE	1	
36	VYK8120	EYE CAP HOLDER ASS'Y	1	
37	VYQ2169	EVF LCD HOLDER ASS'Y	1	
38	VMZ3141	VF SLIDE BASE	1	
39	VHD1127	SCREW	4	
41	VSC4665	LCD SHIELD CASE	1	
47	VYH0294	HANDLE ASS'Y	1	
49	VYF2769	HANDLE COVER	1	
50	VJF0804	CABLE CLAMPER	1	
53	VYQ2096	MIC HOLDER PLATE ASS'Y	1	
54	VMP2407	SHOE	2	
55	VMC1288	SHOE SPRING	2	
59	VGU8747	PHOTO BUTTON	1	
60	VGQ4811	SHOE COVER	2	
61	VGQ5988	EVR BLIND COVER	1	
62	VYQ1507	CAMERA FRAME ASS'Y	1	
63	VWJ05E5180L0	FFC	1	
64	VWJ12E5100L0	FFC	1	
65	VSC5200	CCD SHIELD COVER	1	
70	VWJ14E5040L0	FFC	1	
71	VEE0M14	SPEAKER CABLE K	1	
72	VWJ1467	FFC	1	
73	VMG1355	SHOULDER PAD	1	
76	VGP5435	FACE PANEL	1	
77	VGU7779	VTR OPERATION BUTTON (A)	1	
78	VGU7780	VTR OPERATION BUTTON (B)	1	
79	VGQ4598	VTR OPERATION HOLDER	1	
80	VMG1070	VTR DEADEN SHEET	2	
81	VMP6651	VTR EARTH PLATE	1	
82	VMB2531	MODE KNOB SPRING	1	
83	VMP6628	VTR OPERATE BUTTON ANGLE	1	
84	VGQ4853	VTR BARRIER	2	
85	VWJ07E5130L0	FFC	1	
86	VMT0771	GASKET (A)	1	
87	VGQ4631	SPEAKER NET	1	
88	VWJ16C8050AA	FFC	1	
89	VWJ13C8045AA	FFC	1	
90	VGU8883	SLIDE KNOB	3	
91	VGU8881	VR KNOB	2	
92	VGU7459	SW KNOB	1	
93	VMP6845	HINGE HOLD ANGLE	1	
94	VGQ6188	CABALE BARRIER	1	
96	VWJ08E5050L0	FLEXIBLE CABLE	1	
97	VGQ6273	CABLE PROTECT SHEET	1	
98	VMZ3182	C.B.A. INSULATION SHEET	1	
100	XTV3+6GFZ	SCREW	4	
101	XQN2+BJ4	SCREW	5	
103	XQN16+BJ4FZ	SCREW	2	
104	XTV26+8G	SCREW	2	
105	XTN3+8GFZ	SCREW	5	
106	XTN26+8GFZ	SCREW	3	
107	XTN3+6J	SCREW	2	
108	XQN16+BJ3FZ	SCREW	2	
110	XQS2+AJ7FZ	SCREW	8	
112	XQN16+B5FZ	SCREW	2	
113	XSB2+5FZ	SCREW	3	
114	VMS5604	SCREW	3	
115	XQN2+B3	SCREW	1	
118	XQN16+B4FN	SCREW	2	
121	XTB3+8GFZ	SCREW	16	
124	XYN2+C6	SCREW	2	
E3	VEP03E35D	VTR MAIN C.B.A.	1	
E4	VEP23443A	CAMERA MAIN C.B.A.	1	
E5	VEP20737B	CAMERA OPERATION C.B.A.	1	
E6	VEP28240D	E.V.F (A) C.B.A.	1	
E7	VEP28244B	E.V.F (B) C.B.A.	1	
E11	VEP06C24A	TOP OPERATION C.B.A.	1	
E14	VEP000R0A	MOTHER C.B.A.	1	
E20	VEP06E27A	LCD INT C.B.A.	1	
E21	VEP000S1A	EVF INT C.B.A.	1	
E23	VEP22268A	CAMERA SUB C.B.A.	1	
E25	VEP000T7A	ZOOM C.B.A.	1	
E26	VEP000T8A	EVR EXT C.B.A.	1	
E27	VEP000T9A	SW C.B.A.	1	

FRAME & CASING PARTS ASSEMBLY (2)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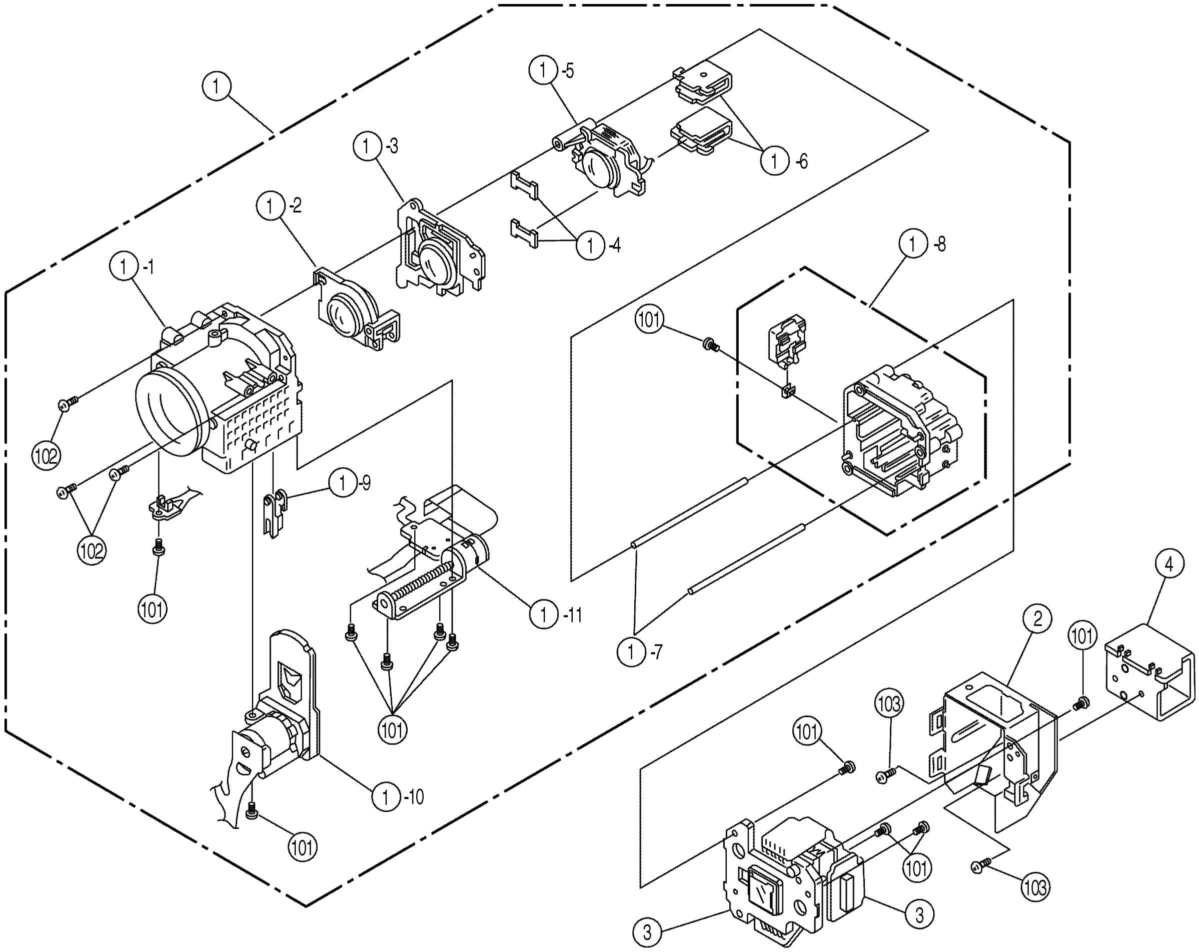
CAMERA LENS ASSEMBLY



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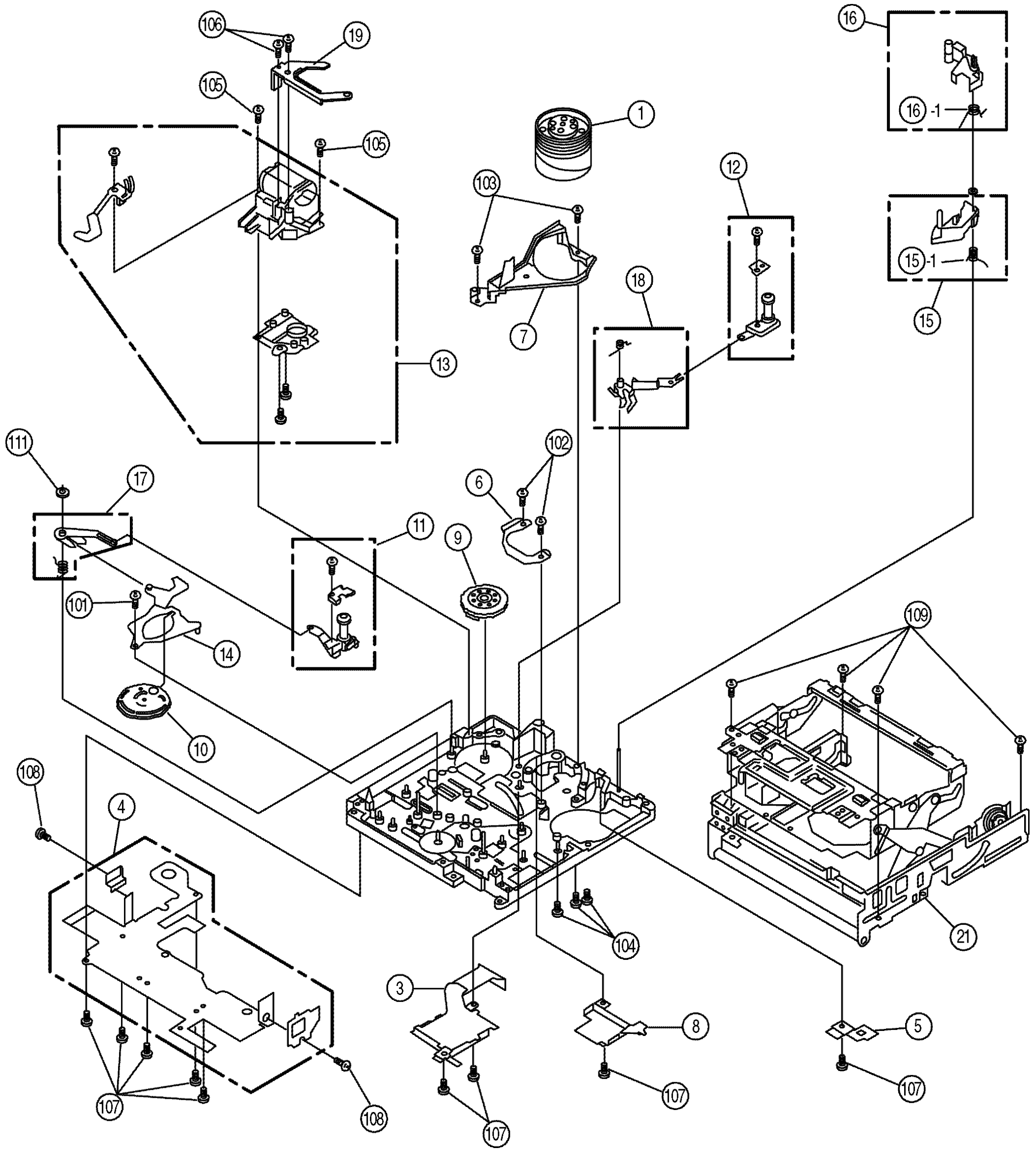
CAMERA LENS ASSEMBLY

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VXW0401	LENS ASS'Y	1	
1-1	VXQ0666	MAIN ASS'Y	1	
1-2	VXP1829	2ND MOVING FRAME ASS'Y	1	
1-3	VXQ0667	3RD LENS ASS'Y	1	
1-4	VMA9768	SIDE YOKE	2	
1-5	VXP1830	4TH MOVING FRAME ASS'Y	1	
1-6	VXA5946	YOKE ASS'Y	2	
1-7	VMS6230	GUIDE POLE	1	
1-8	VDW0506	MASTER FLANGE	1	
1-9	VML3277	2ND LACK	1	
1-10	VEK8197	LENS FLEX. CARD	1	
1-11	VEM0641	ZOOM MOTOR ASS'Y	1	
2	VSC4668	SHIELD CASE	1	
3	VXQ1004	PRISM ASS'Y	1	
3-1	VEP22269A	CCD FLEX. CARD C.B.A.	1	
4	VGQ4738	CCD PLATE	1	
101	XQN16+CJ5	SCREW	11	
102	XQN16+CJ8	SCREW	3	
103	XQN2+B3	SCREW	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks

VCR MECHANISM ASSEMBLY(1)

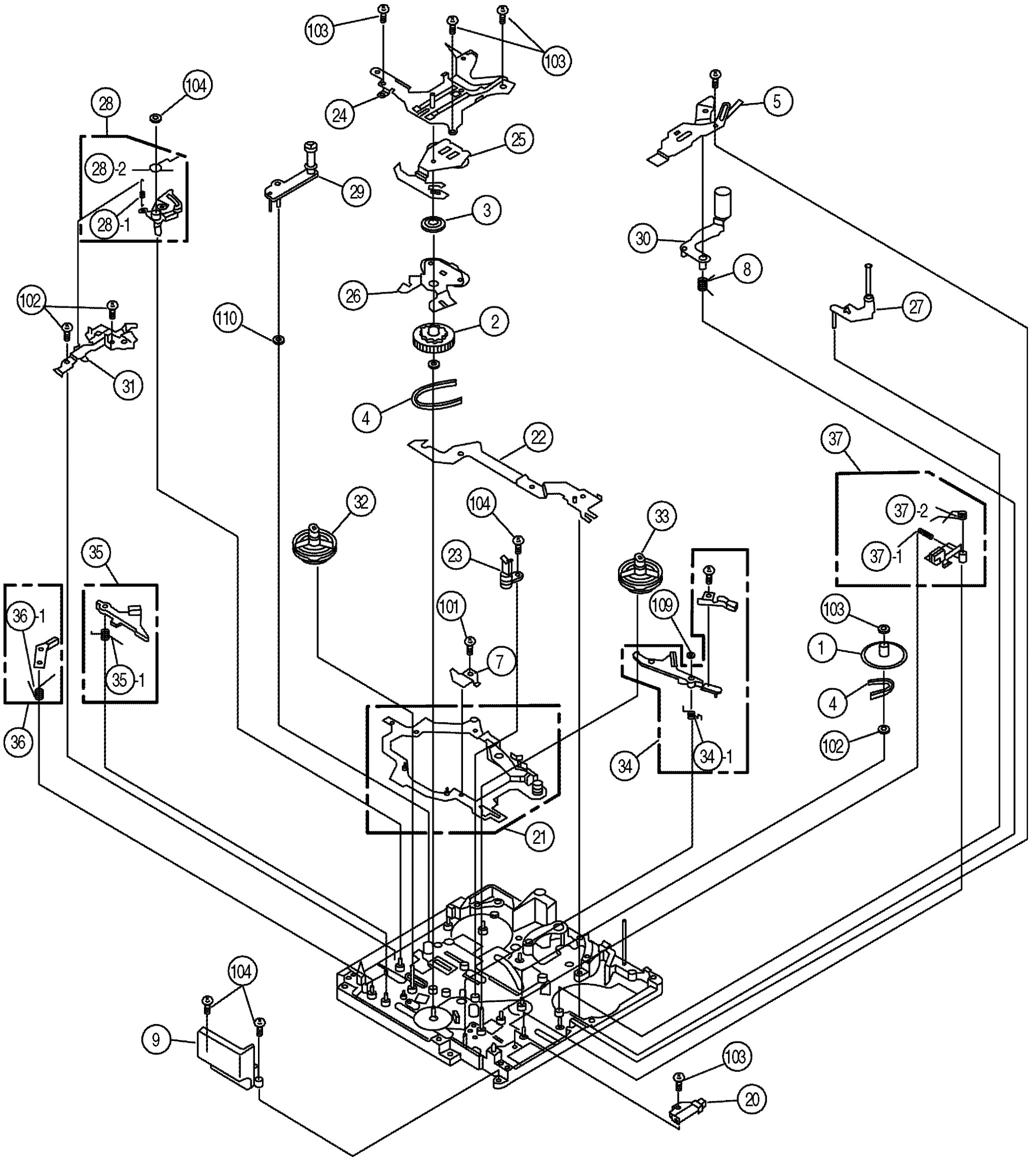


VCR MECHANISM ASSEMBLY(1)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VEG1573	CYLINDER UNIT	1	
2	VEM0624	CAPSTAN MOTOR ASS'Y	1	
3	VEP05352A	HEAD AMP P.C.BOARD	1	
3-*	VSC4639	SHIELD CASE	1	
4	VES0928	FLEXIBLE CABLE	1	
5	VMA9708	CAPSTAN COVER	1	
6	VMA9179	RADON PLATE	1	
7	VMD2373	RAIL	1	
8	VSC4640	SHIELD CASE	1	
9	VSR0114	MODE SW	1	
10	VXA5407	CAM GEAR	1	
11	VXA5409	S BOAT ASS'Y	1	(M)
12	VXA5410	T BOAR ASS'Y	1	(M)
13	VXA5417	GEAR BOX	1	
14	VXA5612	RADON ARM ASS'Y	1	
15	VXL2461	T2 ARM ASS'Y	1	
15-1	VMB2789	T2 ARM SPRING	1	
16	VXL3103	CLEANING ARM ASS'Y	1	VXL2468 (M)
16-1	VMB2791	CLEANING ARM SPRING	1	
17	VXL2470	S1 ARM ASS'Y	1	
18	VXL2471	T1 ARM ASS'Y	1	
19	VMA9753	CYLINDER HOLD ANGLE	1	
20	VMB2777	CAPSTAN ADJ. SPRING	1	
21	VXA5387	GARAGE ASS'Y	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
101	VHD0878	SCREW	1	
102	VHD0989	SCREW	2	
103	XQN14+B4	SCREW	2	
104	VXQ0439	SCREW	3	
105	XQN14+B35	SCREW	2	
106	XQN14+BQ4	SCREW	2	
107	XQN14+B15	SCREW	9	
108	XQN14+B2	SCREW	2	
109	VHD0882	SCREW	6	
110	XQN14+B4FZ	SCREW	1	
111	VMX2027	CUT WASHER	2	

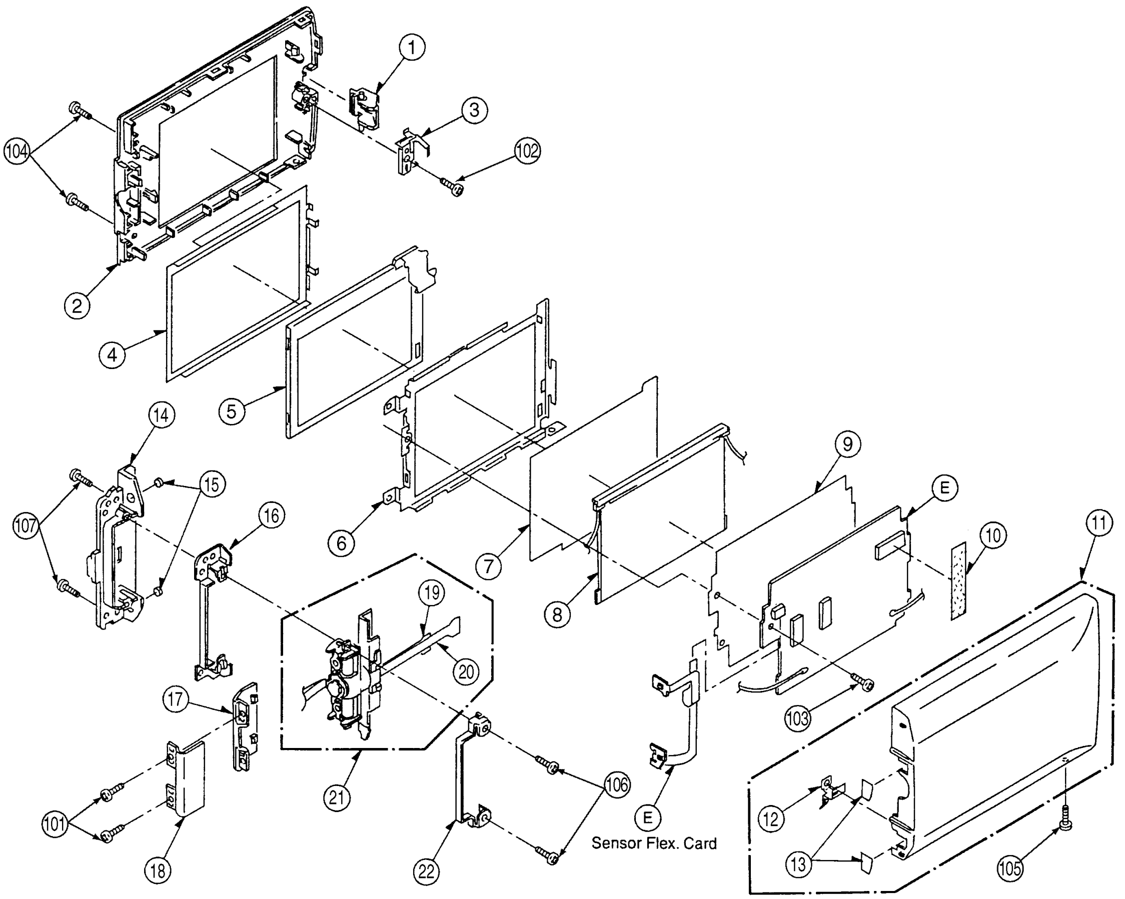
VCR MECHANISM ASSEMBLY(2)



VCR MECHANISM ASSEMBLY(2)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VDG1030	DRIVE PULLEY	1	
2	VDG1031	CENTER PULLEY	1	
3	VDG1032	SENSOR GEAR	1	
4	VDV0265	TIMING BELT	1	
5	VMA9178	PINCH PRESSURE PLATE	1	
7	VMA9181	BRAKE ROD SUPPORT (T)	1	
8	VMB2776	SPRING	1	
9	VSH0067	MIC SWITCH	1	
20	VSJ0114	SOLENOID	1	
21	VXA5401	BRAKE ROD ASS'Y	1	
22	VXA5408	T3 ROD ASS'Y	1	
23	VXA5411	LED HOLDER ASS'Y	1	
24	VXA5412	COVER PLATE ASS'Y	1	
25	VXL2454	P IDLER ARM ASS'Y	1	
26	VXL2455	FR IDLER ARM ASS'Y	1	
27	VXL2456	TENSION ARM ASS'Y	1	
28	VXL2732	PAD ARM ASS'Y	1	
28-1	VMB2788	TENSION SPRING	1	
28-2	VMB2787	PAD ARM SPRING	1	
29	VXL2462	T3 ARM ASS'Y	1	
30	VXL2464	PINCH ARM ASS'Y	1	
31	VXL2466	EJECT ARM ASS'Y	1	
32	VXR0355	SUPPLY REEL TABLE	1	
33	VXR0356	TAKE UP REEL TABLE	1	
34	VXZ0319	TAKE UP MAIN BRAKE	1	
34-1	VMB2782	T MAIN BRAKE SPRING	1	
35	VXZ0321	SUPPLY MAIN BRAKE	1	
35-1	VMB2783	S MAIN BRAKE SPRING	1	
36	VXZ0322	FF BRAKE ASS'Y	1	
36-1	VMB2784	FF BRAKE SPRING	1	
37	VXZ0323	REV BRAKE ASS'Y	1	
37-1	VMB2786	REV SPRING	1	
37-2	VMB2785	REV BRAKE SPRING	1	
101	VHD0882	SCREW	1	
102	XQN14+B15	SCREW	2	
103	VHD0883	SCREW	5	
104	XQN14+B35	SCREW	3	
105	VMX2503	C PULLEY WASHER	1	
106	VMX2400	WASHER	1	
107	VMX2504	WASHER	1	
108	VMX2027	CUT WASHER	1	
109	VMX2028	WASHER	1	
110	VMX2394	WASHER	1	

LCD ASSEMBLY



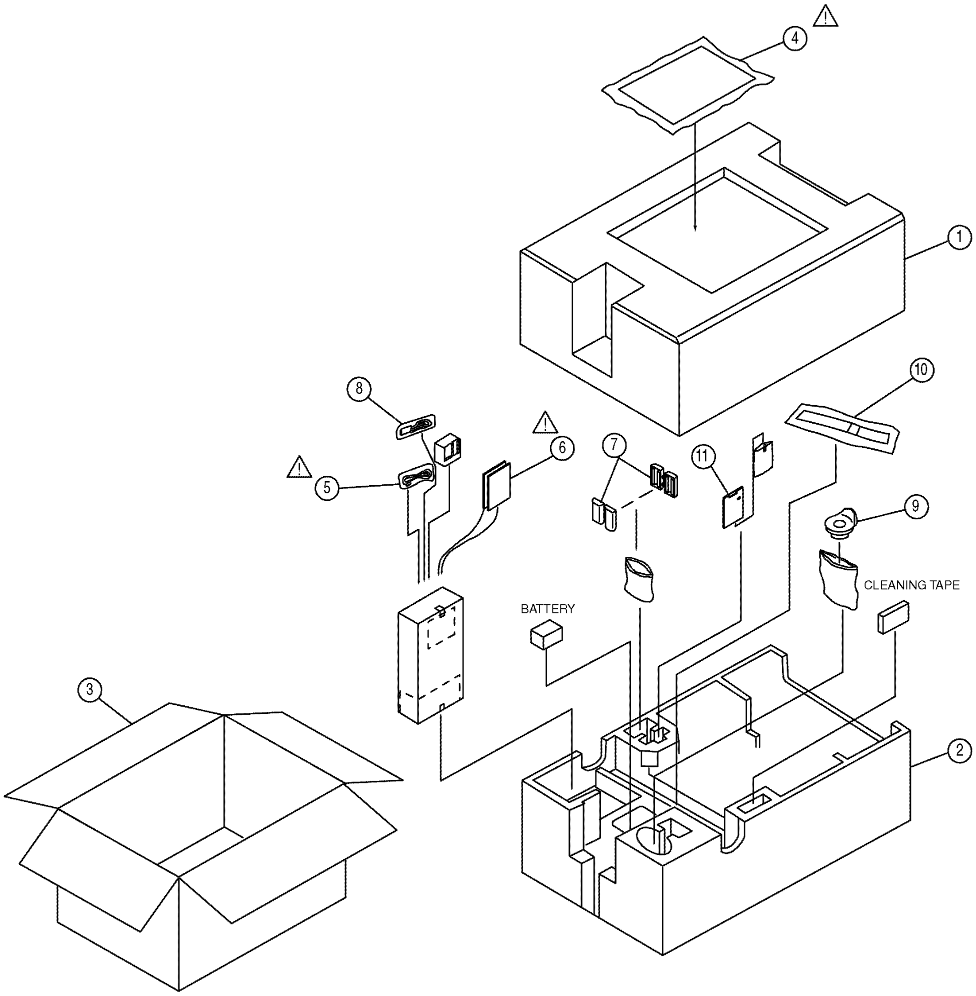
LCD ASSEMBLY

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VGQ5572	LCD LOCK LEVER	1	
2	VKM5323	LCD CASE (LOWER)	1	
3	VMC1576	LCD LOCK SPRING	1	
4	VSC4974	LCD SHIELD CASE	1	
5	EDTCA22QA0	MONITOR LCD PANEL	1	
6	VSC4975	LCD FRAME	1	
7	VGQ4615	DIFFUSION SHEET	1	
8	VEK8888	BACK LIGHT ASS'Y	1	
9	VGQ5573	LCD SHIELD SHEET	1	
10	VGQ3457	PROTECTION BARRIER	1	
11	VYK9933	LCD CASE (UPPER) ASS'Y	1	
12	VMC1614	EARTH SPRING	1	
13	VGQ5633	PROTECT SHEET	2	
14	VGQ5575	HINGE HOLDER	1	
15	VSQ1041	LCD ROTATION MAGNET	2	
16	VMP6171	HINGE MOUNT PLATE	1	
17	VGQ5578	HINGE COVER (LOWER)	1	
18	VGQ5577	HINGE COVER (UPPER)	1	
19	VJB000F1	MONITOR FLEX. (2)	1	FP601-FP904
20	VJB000F0	MONITOR FLEX. (1)	1	FP602-FP903
21	VXD0315	LCD HINGE (1) ASS'Y	1	
22	VMP6172	HINGE REINFORCEMENT PLATE	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
101	XQN2+B3FZ	SCREW	2	
102	XQN2+BJ5	SCREW	2	
103	XQN2+BF25	SCREW	2	
104	XQN2+BJ8FN	SCREW	2	
105	XQN2+B35FN	SCREW	1	
106	XQN2+CJ8	SCREW	2	
107	XQN2+CJ7FZ	SCREW	2	

PACKING PARTS & ACCESSORIES ASSEMBLY

Components identified with the mark ⚠ have the special characteristics for safety.
When replacing any of these components, use only the same type.



PACKING PARTS & ACCESSORIES ASSEMBLY

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VPN5481	CUSHION (UPPER)	1	
2	VPN5482	CUSHION (LOWER)	1	
3	VPG0J91	PACKING	1	
⚠ 4	VQT9246	OPERATING INSTRUCTIONS	1	FOR GER/ENG/FRE/SPA
⚠ 4	VQT9330	OPERATING INSTRUCTIONS		FOR ITALY
⚠ 5	VJA0733	AC CORD	1	K2CT3DA00001 FOR U.K.
⚠ 5	K2CR2DA00005	AC CORD	1	
⚠ 6	VQT9267	OPERATING INSTRUCTIONS	1	AC ADAPTOR
7	VLP0123	DC LINE CORE	1	J0KG00000001
8	VEK8722	DC CABLE ASS'Y	1	
9	VMG1370	EYE CAP	1	
10	VFC3573	SHOULDER STRAP	1	
11	VSQS1510	REMOTE CONTROL	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks

ELECTRICAL REPLACEMENT PARTS LIST

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E1	VEP01801C	POWER C.B.A.	1	(RTL)
■ E2	VEP02561A	DRIVE C.B.A.	1	(RTL)
■ E3	VEP03E52C	VTR MAIN C.B.A.	1	(RTL)
■ E4	VEP23443B	CAMERA MAIN C.B.A.	1	(RTL)
■ E5	VEP20737B	CAMERA OPERATION C.B.A.	1	(RTL)
■ E6	VEP28240D	EVF A C.B.A.	1	(RTL)
■ E7	VEP28244B	EVF B C.B.A.	1	(RTL)
■ E8	VEP05352A	HEAD/REC AMP C.B.A.	1	(RTL)
■ E9	VEP04684A	FRONT C.B.A.	1	(RTL)
■ E10	VEP04778A	JACK C.B.A.	1	(RTL)
■ E11	VEP06C24A	TOP OPERATION C.B.A.	1	(RTL)
■ E12	VEP06C37A	REAR OPERATION C.B.A.	1	(RTL)
■ E13	VEP04693A	MIC C.B.A.	1	(RTL)
■ E14	VEP000T6A	MOTHER C.B.A.	1	(RTL)
■ E15	VEP000R1A	EJECT C.B.A.	1	(RTL)
■ E16	VEP000R3A	REMOTE CONTROL C.B.A.	1	(RTL)
■ E17	VEP000R4A	GRIP ZOOM SW C.B.A.	1	(RTL)
■ E18	VEP000R5A	AWT INT C.B.A.	1	(RTL)
■ E19	VEP000R6A	BATTERY INT C.B.A.	1	(RTL)
■ E20	VEP06E27A	LCD CONTROL C.B.A.	1	(RTL)
■ E21	VEP000U4A	EVF INT C.B.A.	1	(RTL)
■ E22	VEP000S2A	PHOTO SHOT SW C.B.A.	1	(RTL)
■ E23	VEP22278A	CAMERA SUB C.B.A.	1	(RTL)
■ E24	VEP01896A	SUB POWER C.B.A.	1	(RTL)
■ E25	VEP000T7A	ZOOM C.B.A.	1	(RTL)
■ E26	VEP000T8A	EVR EXT C.B.A.	1	(RTL)
■ E27	VEP000T9A	SW C.B.A.	1	(RTL)
■ E28	VEP04777A	MIC AMP C.B.A.	1	(RTL)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E1	VEP01801C	POWER C.B.A.	1	(RTL)
C1001	F1K1A3350001	C.CAPACITOR CH 10V 3.3U	1	
C1002	ECGC1BB150	C.CAPACITOR 12V 15P	1	
C1003,04	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	2	
C1009	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C1011	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1012	F1K1A3350001	C.CAPACITOR CH 10V 3.3U	1	
C1013	ECUX1E331KBQ	C.CAPACITOR CH 25V 330P	1	
C1014	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C1015	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C1016-19	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	4	
C1021	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1022	F1K1A3350001	C.CAPACITOR CH 10V 3.3U	1	
C1023	ECUX1E331KBQ	C.CAPACITOR CH 25V 330P	1	
C1024	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C1025	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C1026-29	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	4	
C1031	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1032	F1K1A3350001	C.CAPACITOR CH 10V 3.3U	1	
C1033	F1G1E392A056	C.CAPACITOR CH 25V 3900P	1	
C1034	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C1035	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C1036	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1041	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1042	F1K1A3350001	C.CAPACITOR CH 10V 3.3U	1	
C1043	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C1045	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C1046,47	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	2	
C1051	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C1052	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	1	
C1053	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	1	
C1055	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C1056	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1058	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C1059	F1K1A3350001	C.CAPACITOR CH 10V 3.3U	1	
C1061	ECUX1E152KBQ	C.CAPACITOR CH 25V 1500P	1	
C1062	ECUX1E332KBQ	C.CAPACITOR CH 25V 3300P	1	
C1063,64	F1K1A225A007	C.CAPACITOR CH 10V 2.2U	2	
C1065,66	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	2	
C1071	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1072	F1K1A3350001	C.CAPACITOR CH 10V 3.3U	1	
C1073	ECUX1E331KBQ	C.CAPACITOR CH 25V 330P	1	
C1074	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C1075	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C1076	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1101	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	1	
C1102	F1J1C334A091	C.CAPACITOR CH 16V 0.33U	1	
C1103	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C1104	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1105	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1106	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1107	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1111	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1112	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	1	
C1113	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	1	
C1114	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C1117	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1118	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C1119	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1121	ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1122	ECUX1C822KBQ	C.CAPACITOR CH 16V 8200P	1	
C1123	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	1	
C1124	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C1128,29	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	2	
C1131	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1132	ECUX1E222KBQ	C.CAPACITOR CH 25V 2200P	1	
C1133	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	1	
C1134	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C1141	ECUM1E223KBN	C.CAPACITOR CH 25V 0.023U	1	
C1142	ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C1143	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	1	
C1144	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C1151	ECUX1H153KBV	C.CAPACITOR CH 50V 0.015U	1	
C1152	ECUX1C822KBQ	C.CAPACITOR CH 16V 8200P	1	
C1153	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	1	
C1154	ECUX1H820JCQ	C.CAPACITOR CH 50V 82P	1	
C1155	ECST1AY225	T.CAPACITOR CH 10V 2.2U	1	
C1156	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C1157	F1J0J335A002	C.CAPACITOR CH6.3V 3.3U	1	
C1171	ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1172	ECUX1C822KBQ	C.CAPACITOR CH 16V 8200P	1	
C1173	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	1	
C1174	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C1251	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
D1051,52	MA729	DIODE	2	
D1061,62	MA728	DIODE	2	
D1101	MAZ81200LL	DIODE	1	
D1102	MA728	DIODE	1	
D1103	1SS355	DIODE	1	
D1151	MAZ81600ML	DIODE	1	
D1152	1SS355	DIODE	1	
FP1001	VJS3320B014	CONNECTOR (FEMALE)	1	
IC1001	C0DBAFA00012	IC	1	
IC1002	TA75S393F	IC	1	
IP1001	K5H312300003	FUSE	1	
L1001	ELC5SB3R9M	COIL 3.9UH	1	
L1011	ELL6TR560	COIL 56UH	1	
L1012	G1A4R7G00001	COIL 4.7UH	1	
L1013	G1C100KA0005	COIL 10UH	1	
L1014	G1C100KA0004	COIL 10UH	1	
L1015-17	G1C100KA0005	COIL 10UH	3	
L1021	ELL6TR150	COIL 15UH	1	
L1022	G1A4R7G00001	COIL 4.7UH	1	
L1023	G1C4R7MA0002	COIL 4.7UH	1	
L1024	G1C100KA0005	COIL 10UH	1	
L1025	G1C100KA0004	COIL 10UH	1	
L1026	G1C100KA0005	COIL 10UH	1	
L1029	G1C100KA0005	COIL 10UH	1	
L1031	ELL6TR151	COIL 150UH	1	
L1032	G1A4R7G00001	COIL 4.7UH	1	
L1041	ELL6TR101	COIL 100UH	1	
L1042	G1A4R7G00001	COIL 4.7UH	1	
L1043	G1C100KA0004	COIL 10UH	1	
L1051,52	G1C331KA0005	COIL 330UH	2	
L1054	G1C100KA0005	COIL 10UH	1	
L1061	ELL6TRD003	COIL 3UH	1	
L1062	ELL6TRD004	COIL 4UH	1	
L1071	ELL6TR330	COIL 33UH	1	
L1072	G1A4R7G00001	COIL 4.7UH	1	
PP1001	K1KA80B00025	CONNECTOR (MALE)	1	
Q1011	B1ZBZ0000018	TRANSISTOR	1	
Q1021	B1ZBZ0000018	TRANSISTOR	1	
Q1022	B1DFBC000005	TRANSISTOR	1	
Q1031	B1ZBZ0000018	TRANSISTOR	1	
Q1041	B1ZBZ0000018	TRANSISTOR	1	
Q1042	B1DFBC000005	TRANSISTOR	1	
Q1051	B1BDDE000001	TRANSISTOR	1	
Q1052	2SB0970X0L	TRANSISTOR	1	
Q1053	2SD2216J0L	TRANSISTOR	1	
Q1054	XP1401	TRANSISTOR-RESISTOR	1	
Q1055	2SD2216J0L	TRANSISTOR	1	
Q1056	2SB1462JHL	TRANSISTOR	1	
Q1061,62	B1ZBZ0000018	TRANSISTOR	2	
Q1071	B1ZBZ0000018	TRANSISTOR	1	
Q1101	2SB1462JHL	TRANSISTOR	1	
QR1001	UNR2130X0L	TRANSISTOR	1	
QR1002	UNR921FJ0L	TRANSISTOR	1	
QR1003	UNR9213J0L	TRANSISTOR	1	
QR1004	UNR9115J0L	TRANSISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
QR1055	UNR9213J0L	TRANSISTOR	1	
QR1101	UNR9214J0L	TRANSISTOR	1	
R1001	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R1003,04	ERJ2GEJ225	M.RESISTOR CH 1/16W 2.2M	2	
R1005	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R1007	ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	1	
R1008	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R1009	ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	1	
R1010	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1011	ERJ6RBB682	M.RESISTOR CH 1/10W 6.8K	1	
R1012	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1013	ERJ3RBD151	M.RESISTOR CH 1/16W 150	1	
R1014	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1015	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R1020	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1021	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1022	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1023	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R1024	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1025	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R1030	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1031	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1032	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1033	ERJ3RED220	M.RESISTOR CH 1/16W 22	1	
R1034	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1035	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R1040	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1041	ERJ6RBB152	M.RESISTOR CH 1/10W 1.5K	1	
R1042	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1043	ERJ3RBD301	M.RESISTOR CH 1/16W 300	1	
R1044	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1050	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1051	ERJ6RBB273	M.RESISTOR CH 1/10W 27K	1	
R1052	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1053	ERJ3RBD151	M.RESISTOR CH 1/16W 150	1	
R1054	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1056	ERJ2GEJ470	M.RESISTOR CH 1/16W 47	1	
R1057	ERJ2RHD133	M.RESISTOR CH 1/16W 13K	1	
R1058	ERJ2RHD361	M.RESISTOR CH 1/16W 360	1	
R1059	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	1	
R1061,62	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	2	
R1070	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1071	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1072	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R1073	ERJ3RBD221	M.RESISTOR CH 1/16W 220	1	
R1074	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
R1075	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R1081	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R1101	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R1102	ERJ6GEYF472	M.RESISTOR CH 1/10W 4.7K	1	
R1103	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R1104	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	1	
R1105	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R1106	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R1107	ERJ2GEJ225	M.RESISTOR CH 1/16W 2.2M	1	
R1108	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R1109	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R1111	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R1112	ERJ2GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R1121	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R1122	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R1131	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R1132	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R1136	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R1141	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R1142	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R1150	ERJ8GEYJ680	M.RESISTOR CH 1/8W 68	1	
R1151	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R1152	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R1153	ERJ2RHD123	M.RESISTOR CH 1/16W 12K	1	
R1154	ERJ2RHD473	M.RESISTOR CH 1/16W 47K	1	
R1155	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R1156	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R1157	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R1158,59	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R1171	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R1172	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R1253-55	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	3	
R1256	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
T1001	G5DYA0000016	TRANSFORMER	1	
■ E2	VEP02561A	DRIVE C.B.A.	1	(RTL)
C2201	F1H1E273A050	C.CAPACITOR CH 25V 0.027U	1	
C2202	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C2203	ECUX1H270JCQ	C.CAPACITOR CH 50V 27U	1	
C2204	ECUX1A564KBN	C.CAPACITOR CH 10V 0.56U	1	
C2205	ECUX1E332KBQ	C.CAPACITOR CH 25V 3300P	1	
C2207	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C2208	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2209	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C2210	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C2211	ECST0JY475Z	T.CAPACITOR CH6.3V 4.7U	1	
C2212-14	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	3	
C2215	F1J0J335A002	C.CAPACITOR CH6.3V 3.3U	1	
C2217-19	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	3	
C2223	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2225	F1J0J335A002	C.CAPACITOR CH6.3V 3.3U	1	
C2226,27	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	2	
C2230	F1J0J335A002	C.CAPACITOR CH6.3V 3.3U	1	
C2231	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C2232	F1J0J335A002	C.CAPACITOR CH6.3V 3.3U	1	
C2233	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C2234	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	1	
C2235-37	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	3	
C2238,39	F1J0J335A002	C.CAPACITOR CH6.3V 3.3U	2	
C2240	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	1	
C2245	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C2246	ECUX1A564KBN	C.CAPACITOR CH 10V 0.56U	1	
C2247-49	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	3	
C2250	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C2251	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2255-57	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	3	
FP2002	K1MN22B00030	CONNECTOR	1	
FP2003	K1MN09B00027	CONNECTOR	1	
FP2004	K1MN30B00037	CONNECTOR	1	
IC2201	TB6519AF	IC	1	
IC2202,03	UN224	TRANSISTOR-RESISTOR	2	
IC2204	TA75S393F	IC	1	
IC2205	TC75W54FU	IC	1	
IC2206	TC7S86FU	IC	1	
IC2207	BA6289F	IC	1	
PS2001	K1KB50A00084	CONNECTOR (FEMALE)	1	
Q2201	2SB1462JHL	TRANSISTOR	1	
Q2202	2SD2216J0L	TRANSISTOR	1	
R2201	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R2202	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	1	
R2204	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
R2205	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2207	ERJ2GEJ561	M.RESISTOR CH 1/16W 560	1	
R2208	ERJ8GEYJR33	M.RESISTOR CH 1/8W 0.33	1	
R2209	ERJ8GEYJR47	M.RESISTOR CH 1/8W 0.47	1	
R2210,11	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	2	
R2212	ERJ8RQJR27	M.RESISTOR CH 1/8W 0.27	1	
R2213	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	1	
R2214	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2215,16	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R2220	ERJ2RHD104	M.RESISTOR CH 1/16W 100K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R2221	ERJ2RHD431	M.RESISTOR CH 1/16W 430	1	
R2222,23	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	2	
R2224	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	1	
R2225	ERJ2GEJ394	M.RESISTOR CH 1/16W 390K	1	
R2226	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2227	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2228	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R2229	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2231	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R2232	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	1	
R2233	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R2234	ERJ2GEJ394	M.RESISTOR CH 1/16W 390K	1	
R2235	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R2236	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R2237	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2238	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	1	
RA2201	EXBV8V331J	COMBI.R-R 330	1	
RA2203	EXBV4V102J	COMBI.R-R 1K	1	
		MISCELLANEOUS		
	VMZ2689	INSULATION SHEET	1	
■ E3	VEP03E52C	VTR MAIN C.B.A.	1	(RTL)
C601	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C602	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C603-10	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	8	
C611-13	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	3	
C614	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C615	ECUX1H181JCQ	C.CAPACITOR CH 50V 180P	1	
C616	ECUX1H680JCQ	C.CAPACITOR CH 50V 68P	1	
C617-19	ECUX1H560JCQ	C.CAPACITOR CH 50V 56P	3	
C620-26	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	7	
C630-32	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	3	
C633	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C634	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C635-42	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	8	
C643-45	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	3	
C646	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C647	ECUX1H181JCQ	C.CAPACITOR CH 50V 180P	1	
C648	ECUX1H680JCQ	C.CAPACITOR CH 50V 68P	1	
C649-51	ECUX1H560JCQ	C.CAPACITOR CH 50V 56P	3	
C652-58	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	7	
C662-65	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	4	
C666	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C667	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C668	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C669	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C671,72	VCS0JJ106	T.CAPACITOR CH6.3V 10U	2	
C2001,02	F1G1H100A448	C.CAPACITOR CH 50V 10P	2	
C2003-05	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C2006	ECUX1H120JCQ	C.CAPACITOR CH 50V 12P	1	
C2007	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2008	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2009	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C2010	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2011	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C2012	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C2013	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C2014	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2015	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C2016	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2017	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C2018	ECST0JY475Z	T.CAPACITOR CH6.3V 4.7U	1	
C2019	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2020	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2021	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2023-25	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C2026	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C2027	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C2028	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2029	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C2030	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2031,32	ECUX1H221JCQ	C.CAPACITOR CH 50V 220P	2	
C2033	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2034	ECST1CY225	T.CAPACITOR CH 16V 2.2U	1	
C2035,36	F1G1H100A448	C.CAPACITOR CH 50V 10P	2	
C2037	ECUX1H330JCQ	C.CAPACITOR CH 50V 33P	1	
C2038	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	1	
C2040	ECUX1H120JCQ	C.CAPACITOR CH 50V 12P	1	
C2041	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C2042	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C2199	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C3002	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3003	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	1	
C3004	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3005-09	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	5	
C3010-13	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	4	
C3015	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3016	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C3017	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3018	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3019	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C3020	F1G1H100A448	C.CAPACITOR CH 50V 10P	1	
C3021	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C3022	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3023	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C3026	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3027	ECUX1H050CCQ	C.CAPACITOR CH 50V 5P	1	
C3028	ECUX1E561KBQ	C.CAPACITOR CH 25V 560P	1	
C3030	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3035	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3036	F1G1H100A448	C.CAPACITOR CH 50V 10P	1	
C3037	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C3038,39	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	2	
C3040,41	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	2	
C3042	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3043-48	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	6	
C3050,51	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C3053,54	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C3055-58	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	4	
C3060	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	1	
C3061	ECUX1H120JCQ	C.CAPACITOR CH 50V 12P	1	
C3065	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C3066	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3067	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	1	
C3071,72	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C3073-77	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	5	
C3078,79	ECUX1H050CCQ	C.CAPACITOR CH 50V 5P	2	
C3080	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C3081	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3083,84	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	2	
C3086	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C3088	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3089	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3090	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3091	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	1	
C3092	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3094	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C3096	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C3201,02	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	2	
C3203,04	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C3205	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3206,07	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	2	
C3208	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C3209-11	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C3212,13	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C3214	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C3215	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3216-18	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C3219	F1H1E273A050	C.CAPACITOR CH 25V 0.027U	1	
C3220-22	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C3223	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C3224	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3225-27	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C3228	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C3229	ECUX1E331KBQ	C.CAPACITOR CH 25V 330P	1	
C3230	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3231	ECUX1E152KBQ	C.CAPACITOR CH 25V 1500P	1	
C3232-34	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C3235	ECUX1E681KBQ	C.CAPACITOR CH 25V 680P	1	
C3236-38	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C3239	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3240	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3241,42	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C3243-45	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
C3246	F1J0J225A002	C.CAPACITOR CH6.3V 2.2U	1	
C3247-52	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	6	
C3253	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3254,55	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C3256	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3257	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3258	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C3259	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C3261	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C3262	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3264	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3265	ECUX1H220JCQ	C.CAPACITOR CH 50V 22P	1	
C3802-04	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	3	
C3806	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3807	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3808	ECUX1E271KBQ	C.CAPACITOR CH 25V 270P	1	
C3809	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3813	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C3814	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3816	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3817,18	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C3820	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C3822	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C3824-26	EEJK0JS106	E.CAPACITOR 6.3V 10M	3	
C3827	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C3901	ECST0JC107Z	T.CAPACITOR CH6.3V 100U	1	
C3902	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C4001	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4002	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C4003,04	VCS0JJ106	T.CAPACITOR CH6.3V 10U	2	
C4005,06	ECUX1E152KBQ	C.CAPACITOR CH 25V 1500P	2	
C4007	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	1	
C4011	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4012	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C4013,14	ECUX1H121JCQ	C.CAPACITOR CH 50V 120P	2	
C4015,16	VCS0JJ106	T.CAPACITOR CH6.3V 10U	2	
C4201,02	F1G1C333A004	C.CAPACITOR CH 16V 0.033U	2	
C4203	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C4204	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C4205	ECUX1E222KBQ	C.CAPACITOR CH 25V 2200P	1	
C4206	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C4207	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C4208	ECUX1E122KBQ	C.CAPACITOR CH 25V 1200P	1	
C4209,10	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	2	
C4211	ECUX1E122KBQ	C.CAPACITOR CH 25V 1200P	1	
C4212,13	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	2	
C4214,15	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C4218	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	
C4219	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4501	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4502	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C4503-05	VCS0JJ106	T.CAPACITOR CH6.3V 10U	3	
C4506	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4507	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C4508	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C4509,10	VCS0JJ106	T.CAPACITOR CH6.3V 10U	2	
C4511	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C4512	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C4513,14	VCS0JJ106	T.CAPACITOR CH6.3V 10U	2	
C4515	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C4701	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C4702	VCS0JJ106	T.CAPACITOR CH6.3V 10U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C4704	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4705	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	L606,07
C4706	ECUX1H153KBV	C.CAPACITOR CH 50V 0.015U	1	
C4798,99	ECUX1H153KBV	C.CAPACITOR CH 50V 0.015U	2	
C6501	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C6502,03	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	2	
C6504	EEVHB1C101P	E.CAPACITOR 16V 100U	1	
C6507	ECUX1C822KBQ	C.CAPACITOR CH 16V 8200P	1	
D2001-04	MA728	DIODE	4	
D2005	1SS355	DIODE	1	
D2006	MA3S13300L	DIODE	1	
D2007	1SS355	DIODE	1	
D2010	MA728	DIODE	1	
D2011	MA132WK	DIODE	1	
D2012	MA3S132D0L	DIODE	1	
D2013	MA728	DIODE	1	
D2015-18	MA728	DIODE	4	
D2020-22	MA728	DIODE	3	
D2023	1SS355	DIODE	1	
D2024,25	MA728	DIODE	2	
D3201	MA3S132D0L	DIODE	1	
D3202	MA728	DIODE	1	
D4001	MA3S13300L	DIODE	1	
D4002	MA728	DIODE	1	
D6501-04	MA3S132D0L	DIODE	4	
D6505	MA3S132A0L	DIODE	1	
D6506	MA3S132D0L	DIODE	1	
FP3201	VJS3320B024	CONNECTOR (FEMALE)	1	
FP4001	VJS3319B013	CONNECTOR (FEMALE)	1	
FP6001	VJS3319B014	CONNECTOR (FEMALE)	1	
FP6002	VJS3319B016	CONNECTOR (FEMALE)	1	
IC602	C1AB00001019	IC	1	
IC603	NJM78L12UA	IC	1	
IC604	C0JBAS000081	IC	1	
IC605	C0DBEZG00005	IC	1	
IC606	C0CBAAC00027	IC	1	
IC2001	C2DBJG000053	IC	1	
IC2002	S3511AEFS	IC	1	
IC2003	UPD6462GS626	IC	1	C1AB00000580
IC2004	S81333HGKF	IC	1	
IC2005	C3EBEG000001	IC	1	
IC2006	M62370GP	IC	1	C0FBBD000082
IC2007	C0BBBZ000003	IC	1	
IC2008	TA75S393F	IC	1	
IC2009	S81238SGQ8	IC	1	
IC2010	C0EBE0000057	IC	1	
IC2011	D784037GK510	IC	1	
IC2012	TC4W53FU	IC	1	
IC2013	MM1320ENRE	IC	1	C0CBABB00030
IC2014,15	TC4W53FU	IC	2	
IC3001	T9P90EF	IC	1	
IC3002	MN47V07AF	IC	1	
IC3003	MN67373	IC	1	
IC3004	BA7653AF	IC	1	
IC3005	BH7086KV	IC	1	C1ZBZ0001649
IC3006	NJM2538VT	IC	1	
IC3201	M65500FP	IC	1	C1AB00000834
IC3202	MNV4260DTA7	IC	1	
IC3203	AN3741FAP-AV	IC	1	
IC3204	C0FBAD000052	IC	1	
IC3205	TC7SH08FU	IC	1	
IC3801	C1DB00000453	IC	1	
IC4001	NJM3414AVT	IC	1	
IC4201	BA7785FS	IC	1	
IC4501	AK4513-VQ	IC	1	C0FBZH000004
IC4701	C1CB00000889	IC	1	
IC6501-03	TC7W241FU	IC	3	
IC6505,06	TC7SH08FU	IC	2	
JK3801	VJJ0568	DV JACK	1	
L601-03	VLQ0807K100	COIL 10UH	3	G1C100K00024

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
L605	VLQ0807K100	COIL 10UH	1	G1C100K00024
VLQ0807K220	COIL	22UH 2 G1C220K00016		
L2001	VLQ0807K100	COIL 10UH	1	G1C100K00024
L2002	VLQ0426J330	COIL 33UH	1	G1C330J00005
L2003	VLQ0807K100	COIL 10UH	1	G1C100K00024
L3002	VLQ0426J5R6	COIL 5.6UH	1	G1C5R6J00005
L3003,04	VLQ0807K100	COIL 10UH	2	G1C100K00024
L3005	VLQ0807K220	COIL 22UH	1	G1C220K00016
L3006	VLQ0807K100	COIL 10UH	1	G1C100K00024
L3008	VLQ0807K100	COIL 10UH	1	G1C100K00024
L3009	VLQ0426J100	COIL 10UH	1	G1C100J00008
L3010,11	VLQ0807K100	COIL 10UH	2	G1C100K00024
L3201	VLQ0807K100	COIL 10UH	1	G1C100K00024
L3202	VLQ0807M4R7	COIL 4.7UH	1	G1C4R7K00016
L3203-07	VLQ0807K100	COIL 10UH	5	G1C100K00024
L3208	VLQ0807K220	COIL 22UH	1	G1C220K00016
L3209	VLQ0807M4R7	COIL 4.7UH	1	G1C4R7K00016
L3801-03	VLQ0807K100	COIL 10UH	3	G1C100K00024
L3901	VLQ0807K220	COIL 22UH	1	G1C220K00016
L4001	VLQ0807K100	COIL 10UH	1	G1C100K00024
L4201	VLQ0807K100	COIL 10UH	1	G1C100K00024
L4202	G1C100K00025	COIL 10UH	1	
L4502	VLQ0807K100	COIL 10UH	1	G1C100K00024
L6501	VLQ0807K100	COIL 10UH	1	G1C100K00024
L6502	VLQ0807K220	COIL 22UH	1	G1C220K00016
LB3001-03	VLP0145	COIL	3	
LB3004	VLP0155	COIL	1	
LB3005,06	VLP0329A601	COIL 600UH	2	
LB3007	J0JBC0000043	FILTER	1	
P3001	VJP3172D002	CONNECTOR (MALE)	1	K1KA02B00051
PP2001	VJP3989A050	CONNECTOR (MALE)	1	
PP3001	VJP3884B060	CONNECTOR (MALE)	1	
PP3002	VJS3949A070M	CONNECTOR (FEMALE)	1	
PS1001	VJS3846A080	CONNECTOR (FEMALE)	1	
PS3001	VJS3846A030	CONNECTOR (FEMALE)	1	
PS3002	VJS3846A080	CONNECTOR (FEMALE)	1	
Q601-06	2SB0970X0L	TRANSISTOR	6	
Q608	2SB0970X0L	TRANSISTOR	1	
Q609-11	2SD2216J0L	TRANSISTOR	3	
Q2001	2SB0970X0L	TRANSISTOR	1	
Q2002	2SB1218A	TRANSISTOR	1	
Q2003	2SD182000L	TRANSISTOR	1	
Q2006	2SD2216J0L	TRANSISTOR	1	
Q2008	XP0650100L	TRANSISTOR	1	
Q3001,02	2SD2216J0L	TRANSISTOR	2	
Q3201	2SD2216J0L	TRANSISTOR	1	
Q3202	2SB1462JHL	TRANSISTOR	1	
Q3203	2SC4627J0L	TRANSISTOR	1	
Q3204	2SD2216J0L	TRANSISTOR	1	
Q4001	XN4504	TRANSISTOR-RESISTOR	1	
Q4701	2SD1979	TRANSISTOR	1	
Q4702	XP0440100L	TRANSISTOR	1	
QR601	UNR9212J0L	TRANSISTOR	1	
QR602	UNR9213J0L	TRANSISTOR	1	
QR604-06	UNR9212J0L	TRANSISTOR	3	
QR607	XP0431400L	TRANSISTOR	1	
QR2001	UNR9115J0L	TRANSISTOR	1	
QR2002,03	XP0421300L	TRANSISTOR	2	
QR2004	UNR9115J0L	TRANSISTOR	1	
QR2005	UNR2130X0L	TRANSISTOR	1	
QR2006	UNR9115J0L	TRANSISTOR	1	
QR2007	UNR9213J0L	TRANSISTOR	1	
QR2008	XP0121300L	TRANSISTOR	1	
QR2009,10	UNR9115J0L	TRANSISTOR	2	
QR2011	UNR9213J0L	TRANSISTOR	1	
QR2012,13	UNR9212J0L	TRANSISTOR	2	
QR3001	UNR9212J0L	TRANSISTOR	1	
QR4001	UNR9212J0L	TRANSISTOR	1	
QR4002,03	UNR9112J0L	TRANSISTOR	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
QR4201	UNR9212J0L	TRANSISTOR	1	
QR4703	XP4312	TRANSISTOR-RESISTOR	1	
R507-12	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	6	
R513	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R521	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R522	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R523	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R524	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R525	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R526	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R527-32	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	6	
R600,01	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R602,03	ERJ2RHD102	M.RESISTOR CH 1/16W 1K	2	
R604	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	1	
R605	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R606	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R607	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R608	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R609,10	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	2	
R611	ERJ2GEJ393	M.RESISTOR CH 1/16W 39K	1	
R612	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R613	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R614,15	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R616	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R617	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R619	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R621	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R622	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R623	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R624	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R625	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R626	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R629	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R631	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R634	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R637	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R638	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R639	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R640	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R642	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R644	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R647	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R648-50	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	3	
R651,52	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	2	
R653	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R656-58	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	3	
R659	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R661	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R663	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R664	ERJ2RHD821	M.RESISTOR CH 1/16W 820	1	
R665	ERJ2RHD223	M.RESISTOR CH 1/16W 22K	1	
R666	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R667	ERJ2RHD472	M.RESISTOR CH 1/16W 4.7K	1	
R673	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R674	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R675	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R680	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R681	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R682	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R683	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R685	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R690	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R691-93	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	3	
R694,95	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	2	
R696	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R697-99	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	3	
R2002	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R2003	ERJ2GEJ220	M.RESISTOR CH 1/16W 22	1	
R2004,05	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R2006,07	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R2008	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R2009	ERJ2GEJ394	M.RESISTOR CH 1/16W 390K	1	
R2011	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R2012	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R2013	ERJ2GEJ684	M.RESISTOR CH 1/16W 680K	1	
R2014	ERJ2GEJ474	M.RESISTOR CH 1/16W 470K	1	
R2015	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2016	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R2017,18	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R2019,20	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	2	
R2021	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2022	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R2023	ERJ2GEJ393	M.RESISTOR CH 1/16W 39K	1	
R2024	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R2025	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R2026	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R2027	ERJ8GEYG330	M.RESISTOR CH 1/8W 33	1	
R2028	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R2029	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2031	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2033	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R2034	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	1	
R2035	ERJ2RHD183	M.RESISTOR CH 1/16W 18K	1	
R2036	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R2037	ERJ2RHD223	M.RESISTOR CH 1/16W 22K	1	
R2038	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R2039	ERJ2RHD333	M.RESISTOR CH 1/16W 33K	1	
R2040	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R2041	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2042	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R2043	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2044	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2045	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R2046	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2047	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2048	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2049,50	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R2052	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2053	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R2054	ERJ2GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R2055,56	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R2057	ERJ2GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R2058	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2059	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2060	ERJ2RHD273	M.RESISTOR CH 1/16W 27K	1	
R2061	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R2062,63	ERJ2RHD473	M.RESISTOR CH 1/16W 47K	2	
R2064	ERJ2RHD273	M.RESISTOR CH 1/16W 27K	1	
R2065	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R2066	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2067,68	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	2	
R2069	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R2070	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R2072	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2073,74	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R2076,77	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	2	
R2078,79	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R2080	ERJ2RHD563	M.RESISTOR CH 1/16W 56K	1	
R2081	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	1	
R2082	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2083	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2085	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	1	
R2087	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2088	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2089	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	1	
R2090,91	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R2092	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R2093	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2095	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2096	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2097	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2098-04	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	7	
R2106	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2107	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2108	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R2109	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2110	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R2113	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R2114,15	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R2116	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R2117	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R2118	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R2119	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	1	
R2121	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R2122	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R2123	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2124,25	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	2	
R2126	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R2127	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2128	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2129	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2130	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2133	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2134	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R2135	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R2136-38	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	3	
R2139	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R2140	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2141,42	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R2143	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2199	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R3001,02	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R3003,04	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R3005	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3006	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R3009	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3010	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3011,12	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	2	
R3013	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3014	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3016	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R3017-19	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	3	
R3020	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3022	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	1	
R3023	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3024	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R3027	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R3028	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R3030	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	1	
R3031	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R3032	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	1	
R3033	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R3034	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3035	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3036	ERJ2GEJ225	M.RESISTOR CH 1/16W 2.2M	1	
R3037	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3038,39	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	2	
R3041	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R3042	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R3044	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	1	
R3046	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3048,49	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	2	
R3050,51	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	2	
R3052	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R3053	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3054	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R3055,56	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R3057	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
R3058	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3059	ERJ2GEJ680	M.RESISTOR CH 1/16W 68	1	
R3060	ERJ2GEJ271	M.RESISTOR CH 1/16W 270	1	
R3061	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3062	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3075	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3076	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R3078	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R3079	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R3083	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	1	
R3085	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	1	
R3086	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3090,91	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	2	
R3094	ERJ2GEJ391	M.RESISTOR CH 1/16W 390	1	
R3099	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3203	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R3204	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3205	ERJ2RHD222	M.RESISTOR CH 1/16W 2.2M	1	
R3206,07	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	2	
R3208	ERJ2GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R3209	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3210	ERJ2GEJ561	M.RESISTOR CH 1/16W 560	1	
R3211	ERJ2GEJ680	M.RESISTOR CH 1/16W 68	1	
R3212	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3213	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3214	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3215	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3217	ERJ2RHD181	M.RESISTOR CH 1/16W 180	1	
R3218	ERJ2RHD301	M.RESISTOR CH 1/16W 300	1	
R3219	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3220	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	1	
R3221	ERJ2RHD222	M.RESISTOR CH 1/16W 2.2M	1	
R3222	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3223	ERJ2GEJ124	M.RESISTOR CH 1/16W 120K	1	
R3224	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3225	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R3226	ERJ2GEJ391	M.RESISTOR CH 1/16W 390	1	
R3227,28	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	2	
R3229	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3230	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	1	
R3231	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3232	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3233	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R3234	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3235-37	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	3	
R3238	ERJ2GEJ564	M.RESISTOR CH 1/16W 560K	1	
R3239	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R3240	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3241	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3242	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R3243-45	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	3	
R3247	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3248	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3249	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R3251	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R3252	ERJ2RHD391	M.RESISTOR CH 1/16W 390	1	
R3254	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3255	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	1	
R3801	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3803	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3804	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3805	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3806	ERJ2GEJ394	M.RESISTOR CH 1/16W 390K	1	
R3807	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	1	
R3809	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3811-14	ERJ2RKD560	M.RESISTOR CH 1/16W 56	4	
R3815	ERJ2RHD332	M.RESISTOR CH 1/16W 3.3K	1	
R3816	ERJ2GEJ391	M.RESISTOR CH 1/16W 390	1	
R3834	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3841,42	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R3844	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R3845	ERJ2GEJ270	M.RESISTOR CH 1/16W 27	1	
R4001,02	ERJ2RHD273	M.RESISTOR CH 1/16W 27K	2	
R4003,04	ERJ2RHD822	M.RESISTOR CH 1/16W 8.2K	2	
R4011,12	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	2	
R4013,14	ERJ2RHD223	M.RESISTOR CH 1/16W 22K	2	
R4015,16	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	2	
R4017,18	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	2	
R4021	ERJ2GEJ124	M.RESISTOR CH 1/16W 120K	1	
R4022	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R4201,02	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	2	
R4203,04	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R4205	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R4211	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R4501	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	1	
R4502,03	ERJ2RHD471	M.RESISTOR CH 1/16W 470	2	
R4504	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4506,07	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R4701	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R4702	ERJ2RHD223	M.RESISTOR CH 1/16W 22K	1	
R4704	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R4705	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R4707	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4708	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R4709	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4710	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R4711,12	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	2	
R4798	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R4799	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R6503	ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	1	
R6504	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R6505,06	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	2	
R6510	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R6515	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
RA2001	EXB28V102J	COMBI.R-R 1K	1	
RA2002	EXB24V102J	COMBI.R-R 1K	1	
RA2003	EXB28V473J	COMBI.R-R 47K	1	
RA2005-08	EXB28V103J	COMBI.R-R 10K	4	
RA2011	EXB24V102J	COMBI.R-R 1K	1	
RA2012	EXB28V473J	COMBI.R-R 47K	1	
RA2013	EXB24V331J	COMBI.R-R 330	1	
RA2014	EXB24V271J	COMBI.R-R 270	1	
RA2016	EXB24V102J	COMBI.R-R 1K	1	
RA2018	EXB24V332J	COMBI.R-R 3.3K	1	
RA2023	EXB28V102J	COMBI.R-R 1K	1	
RA2024	EXB24V472J	COMBI.R-R 4.7K	1	
RA3803-05	EXB24V103J	COMBI.R-R 10K	3	
RA3806,07	EXB28V103J	COMBI.R-R 10K	2	
RA3808,09	EXB24V103J	COMBI.R-R 10K	2	
RA4001	EXB24V562J	COMBI.R-R 5.6K	1	
W602	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
W604,05	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
W2001,02	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
W2004	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
W6501	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
X2001	VSX0847	CRYSTAL OSCILLATOR	1	H0J270500019
X2002	VSX0885	CRYSTAL OSCILLATOR	1	H0J327200001
X2003	H2D147500001	CRYSTAL OSCILLATOR	1	
X3001	H0J270500010	CRYSTAL OSCILLATOR	1	
X3003	H0J245500014	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VWJ13E5045L0	FLEXIBLE CABLE	1	
	VWJ16E5050L0	FLEXIBLE CABLE	1	
	VMZ2759	VTR BARRIER	1	
	VMT1187	C.B.A. BACK UP CUSHION	1	
■ E4	VEP23443B	CAMERA MAIN C.B.A.	1	(RTL)
C301,02	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C303	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C304	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C305	ECUX1C153KBQ	C.CAPACITOR CH 16V 0.015U	1	
C306	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C307	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	1	
C308	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C309	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C310	ECUX1C153KBQ	C.CAPACITOR CH 16V 0.015U	1	
C311,12	ECUX1H180JCQ	C.CAPACITOR CH 50V 18P	2	
C313	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C314	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C315	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C316	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C317	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C318-20	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	3	
C321	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C322	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C323	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C324-31	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	8	
C332	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C333	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C334	ECUX1C153KBQ	C.CAPACITOR CH 16V 0.015U	1	
C335	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C336	ECUX1E561KBQ	C.CAPACITOR CH 25V 560P	1	
C337	ECUX1E681KBQ	C.CAPACITOR CH 25V 680P	1	
C347	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C701	ECUX1E332KBQ	C.CAPACITOR CH 25V 3300P	1	
C702,03	ECST0JY156	T.CAPACITOR CH6.3V 15U	2	
C704	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C705	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C706	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C707	ECUX1C153KBQ	C.CAPACITOR CH 16V 0.015U	1	
C708	F1G1E392A056	C.CAPACITOR CH 25V 3900P	1	
C709	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C711	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C712	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C713	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C714	ECUX1C822KBQ	C.CAPACITOR CH 16V 8200P	1	
C715	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	1	
C716	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C717	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C718	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C719	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C720	ECUX1C153KBQ	C.CAPACITOR CH 16V 0.015U	1	
C721	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C722	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C724	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C725,26	F1G1C104A042	C.CAPACITOR CH 16V 0.1U	2	
C727	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	1	
C728	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
D301-03	MA728	DIODE	3	
D304,05	1SS355	DIODE	2	
FP301	K1MN51B00001	CONNECTOR	1	
FP305	VJS3320B012	CONNECTOR (FEMALE)	1	
FP701	K1MN22B00029	CONNECTOR	1	
IC301	MN673432	IC	1	
IC302	MN673442	IC	1	
IC303,04	MN4795F	IC	2	
IC305	MN1021617EB	IC	1	
IC308	TVHC08FT	IC	1	
IC311,12	TC7SH14FU	IC	2	
IC701	T9P45AF	IC	1	
IC702	TA8487F	IC	1	
IC703	TB6526F	IC	1	
IC704	C0ABBB000106	IC	1	
IC705	TA75W01FU	IC	1	
IC706	C0ABBB000081	IC	1	
L303-05	VLQ0807K100	COIL 10UH	3	G1C100K00024
L306,07	G1C330KA0004	COIL 330UH	2	
L308	VLQ0807K100	COIL 10UH	1	G1C100K00024
L313,14	VLQ0807K100	COIL 10UH	2	G1C100K00024
L315	G1C6R8MA0002	COIL 6.8UH	1	
L701,02	VLQ0807K100	COIL 10UH	2	G1C100K00024
L703	G1C470KA0005	COIL 47UH	1	
L704-06	VLQ0807K100	COIL 10UH	3	G1C100K00024
LB301-07	J0JBC0000025	FILTER	7	
LB308	VLF1144A102	FILTER	1	
LB309	J0JBC0000025	FILTER	1	
LB310	VLF1144A102	FILTER	1	
LB312	VLF1144A102	FILTER	1	
PP301	K1KA80B00025	CONNECTOR (MALE)	1	
PP302	K1KA30B00055	CONNECTOR (MALE)	1	
Q301	2SD2216J0L	TRANSISTOR	1	
Q701-03	XN0440400L	TRANSISTOR	3	
Q704	2SD0601A0L	TRANSISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q706	XP0450100L	TRANSISTOR	1	
Q707	2SB1073	TRANSISTOR	1	
QR302	UNR9211J0L	TRANSISTOR	1	
QR303	XP1211	TRANSISTOR-RESISTOR	1	
R301	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R302	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R303	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R304	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R307	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	1	
R308,09	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R310	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R311	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R312	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R313	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	1	
R314,15	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	2	
R316,17	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	2	
R318	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R319	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R320	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R321	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R322,23	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R324,25	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R326	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R327-29	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	3	
R330	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R331	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R332	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R334,35	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R338	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R339,40	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	2	
R341	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R343	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R346	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R367	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R387,88	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R389,90	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R391	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R413	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R471	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R701,02	ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3	2	
R703	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R704	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R705-07	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	3	
R708,09	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R710	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R711	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R712	ERJ3RED124	M.RESISTOR CH 1/16W 120K	1	
R713,14	ERJ2RHD472	M.RESISTOR CH 1/16W 4.7K	2	
R715	ERJ3RED124	M.RESISTOR CH 1/16W 120K	1	
R716	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R717,18	ERJ6RBB472	M.RESISTOR CH 1/10W 4.7K	2	
R719,20	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	2	
R721	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	1	
R722	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R723	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R724	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R725	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R726	ERJ2GEJ184	M.RESISTOR CH 1/16W 180K	1	
R727	ERJ2GEJ821	M.RESISTOR CH 1/16W 820	1	
R728	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R729	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R730	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R731	ERJ2GEJ274	M.RESISTOR CH 1/16W 270K	1	
R732	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R733	ERJ2GEJ274	M.RESISTOR CH 1/16W 270K	1	
R734	ERJ2GEJ394	M.RESISTOR CH 1/16W 390K	1	
R735,36	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	2	
R737	ERJ2GEJ684	M.RESISTOR CH 1/16W 680K	1	
R738	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R739	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R740	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R741	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
R742	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R743,44	ERJ2RHD153	M.RESISTOR CH 1/16W 15K	2	
R746	ERJ6RQF1R8	M.RESISTOR CH 1/10W 1.8K	1	
R747	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R748	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R750	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R751	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R752	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R753	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R754	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R755	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R756,57	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R758	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R759	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R760	ERJ2GEJ393	M.RESISTOR CH 1/16W 39K	1	
R762,63	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	2	
R764,65	ERJ2RHD122	M.RESISTOR CH 1/16W 1.2K	2	
R766	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	1	
R767	ERJ2RHD122	M.RESISTOR CH 1/16W 1.2K	1	
R768	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R769	ERJ2GEJ474	M.RESISTOR CH 1/16W 470K	1	
R775	ERJ2GEJ184	M.RESISTOR CH 1/16W 180K	1	
R777	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
RA301-05	EXB24V473J	COMBI.R-R 47K	5	
RA307	EXB24V473J	COMBI.R-R 47K	1	
RA310	EXB24V332J	COMBI.R-R 3.3K	1	
RA311,12	EXB24V103J	COMBI.R-R 10K	2	
RA314,15	EXB24V104J	COMBI.R-R 100K	2	
RA316	EXB24V152J	COMBI.R-R 1.5K	1	
RA317	EXB24V681J	RESISTOR-RESISTOR	1	
RA319-21	EXB24V102J	COMBI.R-R 1K	3	
RA323	EXB24V102J	COMBI.R-R 1K	1	
RA324	EXB24V473J	COMBI.R-R 47K	1	
RA325	EXB24V101J	COMBI.R-R 100	1	
RA333-39	EXB24V101J	COMBI.R-R 100	7	
TH701	D4CC16830003	THERMISTOR	1	
TH702	D4CC13340001	THERMISTOR	1	
TH703	D4CC11030004	THERMISTOR	1	
W302	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
W305	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
W310	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
X301	H0J160500027	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VGQ4776	CAMERA BARRIER	1	
■ E5	VEP20737B	CAMERA OPERATION C.B.A.	1	(RTL)
SW6501	K0D113B00026	SWITCH	1	
SW6502-04	EVQQW101M	SWITCH	3	
SW6505	K9AA01500003	SWITCH	1	
■ E6	VEP28240D	EVF A C.B.A.	1	(RTL)
BL881	VLL0203	BACK LIGHT	1	
Q881	B1DFCL000005	TRANSISTOR	1	
R881	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
T881	ETJ09K31AM	TRANSFORMER	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
		MISCELLANEOUS		
	VWJ1174	EVF INT CABLE	1	
■ E7	VEP28244B	EVF B C.B.A.	1	(RTL)
C801	F1L1A335A002	C.CAPACITOR CH 10V 3.3U	1	
C802	ECGC1BB150	C.CAPACITOR 12V 15P	1	
C827	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C829	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C830	ECUV1H470JCV	C.CAPACITOR CH 50V 47P	1	
C832	ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C833	ECST1CY225	T.CAPACITOR CH 16V 2.2U	1	
C834-37	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	4	
C838,39	ECST0JY106Z	T.CAPACITOR CH6.3V 10U	2	
C865,66	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
D801	MA338	DIODE	1	
D803	1SS355	DIODE	1	
FP801	VJS3319B018	CONNECTOR (FEMALE)	1	
FP802	VJS3319B016	CONNECTOR (FEMALE)	1	
IC802	C1AB00001218	IC	1	
IC805	TA75S558F	IC	1	
L801	VLQ0426J6R8	COIL 6.8UH	1	G1C6R8J00006
L803-05	VLQ0807K100	COIL 10UH	3	G1C100K00024
L881	G1C100KA0005	COIL 10UH	1	
R802	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R805	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R807,08	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R832	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R834	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R835	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R836	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R841	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R849	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R850	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R851	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R852	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R878,79	ERJ3RBD183	M.RESISTOR CH 1/16W 18K	2	
R880	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
W802	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
■ E8	VEP05352A	HEAD/REC AMP C.B.A.	1	(RTL)
C5001,02	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	2	
C5004	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5007	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5010	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5013	ECUX1E152KBQ	C.CAPACITOR CH 25V 1500P	1	
C5014	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C5015	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5016	ECUX1H330JCQ	C.CAPACITOR CH 50V 33P	1	
C5017	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5018	ECUX1H220JCQ	C.CAPACITOR CH 50V 22P	1	
C5019	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5020,21	EEJK0JS106	E.CAPACITOR 6.3V 10M	2	
C5023,24	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	2	
C5025	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C5026	ECUX1E152KBQ	C.CAPACITOR CH 25V 1500P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C5027	ECUX1H330JCQ	C.CAPACITOR CH 50V 33P	1	
C5028	ECUX1E122KBQ	C.CAPACITOR CH 25V 1200P	1	
C5029	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C5030	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C5031	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5032	ECUX1H470JCQ	C.CAPACITOR CH 50V 47P	1	
C5033	ECUX1E681KBQ	C.CAPACITOR CH 25V 680P	1	
C5034	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	1	
C5035-37	EEJK0JS106	E.CAPACITOR 6.3V 10M	3	
C5038-40	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	3	
FP5001	K1MN08B00040	CONNECTOR	1	
IC5001	AN3731FHQ	IC	1	
L5002,03	G1C220J00006	COIL	2	
L5005	VLQ0807M4R7	COIL 4.7UH	1	G1C4R7K00016
L5007	VLQ0807M4R7	COIL 4.7UH	1	G1C4R7K00016
Q5002,03	2SC3937	TRANSISTOR	2	
Q5005,06	2SD1819A-R	TRANSISTOR	2	
R5002	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	1	
R5003	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R5004	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R5005	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R5010	ERJ2GEJ680	M.RESISTOR CH 1/16W 68	1	
R5012	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R5013	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R5014,15	ERJ2GEJ271	M.RESISTOR CH 1/16W 270	2	
R5016,17	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R5018	ERJ2GEJ680	M.RESISTOR CH 1/16W 68	1	
R5019	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R5020	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R5021	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R5024	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R5025	ERJ2GEJ271	M.RESISTOR CH 1/16W 270	1	
R5026	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R5028	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R5029	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
		MISCELLANEOUS		
	VSC4639	SHIELD CASE	1	
■ E9	VEP04684A	FRONT C.B.A.	1	(RTL)
C4903	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C4905	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	1	
C4908	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C4910,11	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	2	
C4914	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4915	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C4916	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C4917	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C6401	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C6402	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
D6801	B3AAB0000050	DIODE	1	
FL4901	J0MAB0000068	FILTER	1	
FL4902	J0MAB0000067	FILTER	1	
FP4801	VJS3452A013	CONNECTOR (FEMALE)	1	
FP4901	K1MN06B00048	CONNECTOR	1	
FP4902	VJS3319B005	CONNECTOR (FEMALE)	1	
IR6401	VEK8283	REMOTE CONTROL RECEIVER	1	B3RZB0000001
J4901	K2HC105E0003	JACK	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q4901	2SC392900L	TRANSISTOR	1	
Q4902	2SB1218A0L	TRANSISTOR	1	
Q4903	2SC392900L	TRANSISTOR	1	
Q4904	2SB1218A0L	TRANSISTOR	1	
Q4905	2SD1819A-R	TRANSISTOR	1	
QR4903,04	UN5212	TRANSISTOR-RESISTOR	2	
R4902	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4905	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R4906	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4907	ERJ6GEYG154	M.RESISTOR CH 1/10W 150K	1	
R4908	ERJ6GEYG563	M.RESISTOR CH 1/10W 56K	1	
R4909	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R4910	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4911	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R4912	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R4913	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4914	ERJ6GEYG154	M.RESISTOR CH 1/10W 150K	1	
R4915	ERJ6GEYG563	M.RESISTOR CH 1/10W 56K	1	
R4916	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R4917	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4918	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R4919	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R4924	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4925	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4926	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R4928	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4929	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4930	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R6803	ERJ6GEYG181	M.RESISTOR CH 1/10W 180	1	
		MISCELLANEOUS		
	VSC4666	FRONT SHIELD CASE (A)	1	
	VSC4667	FRONT SHIELD CASE (B)	1	
■ E10	VEP04778A	JACK C.B.A.	1	(RTL)
D7001,02	MA3062M	DIODE	2	
FL7001	VLF1393	FILTER	1	J0MAB0000076
FL7002	VLF1394	FILTER	1	J0MAB0000077
FL7003	VLF1376A256	FILTER	1	
FL7004	VLF1394	FILTER	1	J0MAB0000077
J7001	VJJ0215	RCA PIN JACK	1	K2HA303B0013
J7002	VJJ0570	JACK	1	K1CB104B0013
J7003	VJJ0531	HEADPHONE JACK	1	
L7005,06	VLF1315A102	FILTER	2	J0JHC0000015
L7009,10	VLF1315A102	FILTER	2	J0JHC0000015
P7001	VJP3950F014	CONNECTOR (MALE)	1	
R7001-04	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	
R7006-09	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	
R7025-30	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	6	
		MISCELLANEOUS		
	VMP6853	P.C.B. HOLDER ANGLE	1	
	XYN3+K6	SCREW	1	
■ E11	VEP06C24A	TOP OPERATION C.B.A.	1	(RTL)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
FP6801	VJS3320B007	CONNECTOR (FEMALE)	1	
S6801-04	K0H1BA000347	SWITCH	4	
S6806	K0H1BA000347	SWITCH	1	
■ E12	VEP06C37A	REAR OPERATION C.B.A.	1	(RTL)
B6701	VL2020/1HF	BATTERY	1	
D6701	CL150YG	DIODE	1	
D6702	B3AAB0000050	DIODE	1	
FP6701	VJS3320B016	CONNECTOR (FEMALE)	1	K1MN16B00045
FP6702	K1MN05B00028	CONNECTOR	1	
R6701	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
S6701	ESE103119	SWITCH	1	
S6702	VMG0763	SWITCH	1	
S6703	EVQPA501K	SWITCH	1	
S6704	ESD165236	SWITCH	1	
■ E13	VEP04693A	MIC C.B.A.	1	(RTL)
C4801	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C4802	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C4803	ECUM1E823KBN	C.CAPACITOR CH 25V 0.082U	1	
C4804	ECUX1H181JCV	C.CAPACITOR CH 50V 180P	1	
C4805	ECUX1C154KBN	C.CAPACITOR CH 16V 0.15U	1	
C4806	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C4807	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C4808	ECUX1H181JCV	C.CAPACITOR CH 50V 180P	1	
C4809	ECUX1C154KBN	C.CAPACITOR CH 16V 0.15U	1	
C4810	ECUM1E823KBN	C.CAPACITOR CH 25V 0.082U	1	
C4814	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C4816	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C4817	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	1	
C4830	ECST0JX226Z	T.CAPACITOR CH6.3V 22U	1	
FP4802	K1MN06B00048	CONNECTOR	1	
FP4803	K1MN05B00028	CONNECTOR	1	
IC4801	C0ABBB000081	IC	1	
Q4805	2SD1819A-R	TRANSISTOR	1	
Q4810,11	2SD1819A-R	TRANSISTOR	2	
R4801-04	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	4	
R4805	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R4806	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4807	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R4808	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4809,10	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R4811	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R4812	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4813	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R4814	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4815,16	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R4817,18	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	2	
R4823	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R4824	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4839	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R4860	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R4861	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R4863	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4864	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
		MISCELLANEOUS		
	VEK8237	ECM ASS'Y	1	
	VMT0770	MIC DUMPER	1	
	WM-61B102A	ECM	4	
	VMP5468	MIC SUPPORT ANGLE	1	
■ E14	VEP000T6A	MOTHER C.B.A.	1	(RTL)
C1001-04	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	4	
C1005	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C1006,07	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C1008	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C1009,10	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C1011	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C1012,13	ECST1AD107Z	T.CAPACITOR CH 10V 100U	2	
C1502,03	EEVHP1C100	E.CAPACITOR 16V 10U	2	
C1504-09	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C1510,11	EEVHP0J470	E.CAPACITOR 6.3V 47U	2	
C1512-15	EEVHB1C100	E.CAPACITOR 16V 10U	4	
C1516,17	EEVHB0J470	E.CAPACITOR 6.3V 47U	2	
C1518,19	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C1520-27	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	8	
D1501	MA142WK	DIODE	1	
D1502	MA8056-MH	DIODE	1	
D1503	MA142WK	DIODE	1	
IC1001,02	TVHC244FT	IC	2	
IC1003-06	TC7SH08FU	IC	4	
IC1501-05	TVSA0021	IC	5	C0ABBA000042
L1001-17	VLP0353	COIL	17	
L1021-33	VLP0353	COIL	13	
L1034	VLP0155	COIL	1	
L1035-41	VLP0353	COIL	7	
L1042-44	VLP0364	CHIP INDUCTOR	3	
L1045-47	VLP0353	COIL	3	
L1048	VLP0364	CHIP INDUCTOR	1	
L1049	VLP0155	COIL	1	
L1050-52	VLP0353	COIL	3	
L1053	VLP0155	COIL	1	
L1054-60	VLP0353	COIL	7	
L1062-83	VLP0353	COIL	22	
L1084	VLP0155	COIL	1	
L1085-99	VLP0353	COIL	15	
L1100	VLP0364	CHIP INDUCTOR	1	
L1101-03	VLP0328A102	FERRITE CORE	3	
L1104-09	VLP0364	CHIP INDUCTOR	6	
L1502-09	VLP0364	CHIP INDUCTOR	8	
L1510,11	VLP0353	COIL	2	
P1001	VJS3320B012	CONNECTOR (FEMALE)	1	
P1002	VJP3950C007	CONNECTOR (MALE)	1	K1KA07A00118
P1003	VJS3320B007	CONNECTOR (FEMALE)	1	
P1004	VJS3319B014	CONNECTOR (FEMALE)	1	
P1005	K1MN16A00028	CONNECTOR	1	
P1006	VJS3320B016	CONNECTOR (FEMALE)	1	K1MN16B00045
P1007	K1KA20A00180	CONNECTOR (MALE)	1	
P1008	VJP3172D002	CONNECTOR (MALE)	1	K1KA02B00051
P1009	VJS3319B018	CONNECTOR (FEMALE)	1	
P1010	VJS3846A030	CONNECTOR (FEMALE)	1	
P1011	K1KB30A00083	CONNECTOR (FEMALE)	1	
P1012	VJS3846A080	CONNECTOR (FEMALE)	1	
P1013	VJP3949A080H	CONNECTOR (MALE)	1	
P1014	VJS3320B013	CONNECTOR (FEMALE)	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
P1015	VJS3319B013	CONNECTOR (FEMALE)	1	
P1016	VJS3319B005	CONNECTOR (FEMALE)	1	
P1017	VJP4271A005	CONNECTOR (MALE)	1	
P1018	K1KA70A00024	CONNECTOR (MALE)	1	
P1019	VJS3319B050	CONNECTOR (FEMALE)	1	
P1020	VJP3172D002	CONNECTOR (MALE)	1	K1KA02B00051
P1021	VJS3319B018	CONNECTOR (FEMALE)	1	
P1023	VJP4271A006	CONNECTOR (MALE)	1	
P1025	VJS3452A008	CONNECTOR (FEMALE)	1	
P1501	VJP1230T	CONNECTOR (MALE) 3P	1	
P1502	K1MN16A00028	CONNECTOR	1	
P1503	VJP3172B010	CONNECTOR (MALE)	1	
P1504	VJP3950F014	CONNECTOR (MALE)	1	
P1505	VJS3319B016	CONNECTOR (FEMALE)	1	
Q1001	2SB710A-R	TRANSISTOR	1	
QR1001	UN5212	TRANSISTOR-RESISTOR	1	
QR1501	UN5213	TRANSISTOR-RESISTOR	1	
R1003,04	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R1007,08	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R1010	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1028-45	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	18	
R1048	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1049	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R1050	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1052	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1054	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1055	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R1056-68	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	13	
R1070	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1071	ERJ3GEYJ750	M.RESISTOR CH 1/16W 75	1	
R1072,73	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R1074	ERJ3GEYJ750	M.RESISTOR CH 1/16W 75	1	
R1075	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1076,77	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	2	
R1078	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1079	ERJ3GEYJ750	M.RESISTOR CH 1/16W 75	1	
R1080-87	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	8	
R1502	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1503-05	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	3	
R1506,07	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R1509	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1511,12	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R1514-18	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	5	
R1520-23	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	4	
R1524-31	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	8	
		MISCELLANEOUS		
	VGQ6095	BUS FLEX FIX STAND	1	
	XTV26+6G	SCREW	1	
	VWJ1456	BUS FLEX	1	
	VMZ3166	EVR SHIELD SHEET	2	
	VEE0N81	SUB POWER CABLE	1	
■ E15	VEP000R1A	EJECT C.B.A.	1	(RTL)
P6001	VJP4271A002	CONNECTOR (MALE)	1	
SW6001	ESD165236	SWITCH	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E16	VEP000R3A	REMOTE CONTROL C.B.A.	1	(RTL)
C3001	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C3002	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
D3001	LN28CALUS	DIODE	1	
IC3001	VEK8283	REMOTE CONTROL RECEIVER	1	B3RZB0000001
P3001	VJP3172D005	CONNECTOR (MALE)	1	K1KA05B00053
R3001	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
		MISCELLANEOUS		
	VMX1658	LED HOLDER	1	
■ E17	VEP000R4A	GRIP ZOOM SW C.B.A.	1	(RTL)
P5001	VJP3331B003	CONNECTOR (MALE)	1	
P5002	VJS2907D003	CONNECTOR (FEMALE)	1	
R5001	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R5004	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
■ E18	VEP000R5A	AWT INT C.B.A.	1	(RTL)
P2501	VJS3320B005	CONNECTOR (FEMALE)	1	
P2502	VJS3452A008	CONNECTOR (FEMALE)	1	
■ E19	VEP000R6A	BATTERY INT C.B.A.	1	(RTL)
P8001	VJP1232T	CONNECTOR (MALE) 5P	1	
P8002	VJS3319B014	CONNECTOR (FEMALE)	1	
■ E20	VEP06E27A	LCD CONTROL C.B.A.	1	(RTL)
C6101	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C6102,03	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	2	
C6104	EEVHB1E4R7	E.CAPACITOR 25V 4.7U	1	
C6105	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C6106	EEVHB1E4R7	E.CAPACITOR 25V 4.7U	1	
C6107	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C6108-10	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C6201	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C6202-04	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
D6101	LN043572P	LED	1	
DP6101	VSL0252	DISPLAY TUBE PANEL	1	EDD063ZS5A4P
IC6101	UPD78F9418AG	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC6102	BA6138F	IC	1	
IC6103	MN13821-S	IC	1	
IC6104	TVHC126FT	IC	1	
IC6105	TVHT126FT	IC	1	
IC6106	TVHT125FT	IC	1	
L6201	VLQ0319K101	COIL 100UH	1	G1C101K00022
P6001,02	VJS3791D014	CONNECTOR (FEMALE)	2	
P6003,04	VJP3172D002	CONNECTOR (MALE)	2	K1KA02B00051
P6005	VJS3319B050	CONNECTOR (FEMALE)	1	
P6006	VJS3452A008	CONNECTOR (FEMALE)	1	
P6007	VJS3319B018	CONNECTOR (FEMALE)	1	
P6008	VJS3320B012	CONNECTOR (FEMALE)	1	
P6101	VJP3950A009	CONNECTOR (MALE)	1	
Q6201	2SD1819A-R	TRANSISTOR	1	
Q6202,03	2SB1218A-R	TRANSISTOR	2	
Q6204-06	2SD1819A-R	TRANSISTOR	3	
Q6207	2SB1218A-R	TRANSISTOR	1	
Q6208,09	2SD1819A-R	TRANSISTOR	2	
Q6210	XN1501	TRANSISTOR-RESISTOR	1	
Q6211	2SD1819A-R	TRANSISTOR	1	
QR6101	UN5111	TRANSISTOR-RESISTOR	1	
QR6201	UN5213	TRANSISTOR-RESISTOR	1	
R6001-06	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	6	
R6007-11	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	5	
R6012-19	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	8	
R6020	ERJ3RBD821	M.RESISTOR CH 1/16W 820	1	
R6022	ERJ3RBD821	M.RESISTOR CH 1/16W 820	1	
R6024-31	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	8	
R6101	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6102-04	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	3	
R6105	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6106	ERJ6GEYG331	M.RESISTOR CH 1/10W 330	1	
R6107	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6108-13	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	6	
R6114-17	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	
R6118	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6119	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6120,21	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R6122	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6123	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6124,25	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R6126	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6127,28	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R6129-31	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R6133	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6134	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6135	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6139-41	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R6142	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6143-45	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R6146-53	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	8	
R6154	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6157-59	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R6162	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6163	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R6164-66	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	3	
R6201	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6202	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R6203	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R6204	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R6205,06	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R6207	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R6208,09	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R6210,11	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	2	
R6212	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6213	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6214	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6215	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R6216	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6217	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R6218	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6219	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R6220	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R6221,22	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	2	
R6223	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6224	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6225	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R6226-28	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	3	
SW6101	VSS0367-04B	SWITCH	1	
VR6001,02	VRV0279	V.RESISTOR	2	D2BCA54B0003
X6101	VSX0792	CRYSTAL OSCILLATOR	1	H0J491400007
		MISCELLANEOUS		
	VJF0948	LCD HOLDER	1	
■ E21	VEP000U4A	EVF INT C.B.A.	1	(RTL)
P9001,02	VJS3319B018	CONNECTOR (FEMALE)	2	
R9001,02	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
■ E22	VEP000S2A	PHOTO SHOT SW C.B.A.	1	(RTL)
P5501	VJP3172D004	CONNECTOR (MALE)	1	K1KA04B00007
SW5501	EVQP1D05M	SWITCH	1	
■ E23	VEP22278A	CAMERA SUB C.B.A.	1	(RTL)
C101	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C102	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C103	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C104	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C107	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C108,09	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	2	
C111	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C112,13	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	2	
C115	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C117	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C119	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C124	ECUX1H270JCQ	C.CAPACITOR CH 50V 27U	1	
C125,26	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	2	
C127,28	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	2	
C129	ECST1DY475Z	T.CAPACITOR CH 20V 4.7U	1	
C130	ECST1VX155Z	T.CAPACITOR CH 35V 1.5U	1	
C131	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C132	ECST1DY475Z	T.CAPACITOR CH 20V 4.7U	1	
C133	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C134-36	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	3	
C154	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C155	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C163	ECUX1C153KBQ	C.CAPACITOR CH 16V 0.015U	1	
C500	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C501	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C504	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C506	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C507	ECUX1H180JCQ	C.CAPACITOR CH 50V 18P	1	
C508,09	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	2	
C510	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C511	ECUX1H180JCQ	C.CAPACITOR CH 50V 18P	1	
C512	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C513	ECUX1H180JCQ	C.CAPACITOR CH 50V 18P	1	
C514	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	1	
C515	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C516-20	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	5	
C521	ECST0GY226Z	T.CAPACITOR CH 4V 22U	1	
C522	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C523	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	1	
C524	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C525-27	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	3	
C528	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C529	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	1	
C530-41	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	12	
C542-44	EEJK0JS106	E.CAPACITOR 6.3V 10M	3	
C545	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C546	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	1	
C547	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C548,49	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	2	
C550-58	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	9	
C559	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1	
C560	ECST0JY475Z	T.CAPACITOR CH6.3V 4.7U	1	
C561,62	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	2	
C563	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C564	F1K1A225A007	C.CAPACITOR CH 10V 2.2U	1	
C565	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C566	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C567	F1K1A225A007	C.CAPACITOR CH 10V 2.2U	1	
C568	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C569	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C570	F1K1A225A007	C.CAPACITOR CH 10V 2.2U	1	
C571	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C572-74	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	3	
C575,76	ECST0JY156	T.CAPACITOR CH6.3V 15U	2	
C577	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
C578	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C579	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C580	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C581	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C582,83	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	2	
C585	ECST0JY156	T.CAPACITOR CH6.3V 15U	1	
C586	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C587	ECUX1H150JCQ	C.CAPACITOR CH 50V 15P	1	
C589	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	1	
D103	MA728	DIODE	1	
D104	1SS355	DIODE	1	
D105	MA728	DIODE	1	
D110	MA728	DIODE	1	
D501	1SS355	DIODE	1	
D502	MA3J741E0L	DIODE	1	
D503,04	1SS355	DIODE	2	
FL501-03	VLF1173	FILTER	3	
FL504-06	VLF1374	FILTER	3	
FP501	K1MN51B00001	CONNECTOR	1	
FP502	K1MN05B00028	CONNECTOR	1	
IC101,02	TC7SH08FU	IC	2	
IC106	MN5236	IC	1	
IC107,08	MB87882PFV	IC	2	C0ZBZ0000194
IC109	C0JBAB000196	IC	1	
IC110	YWTC7SH04F	IC	1	
IC111	TC7SH08FU	IC	1	
IC112	YWTC7SH04F	IC	1	
IC501	C0ZBZ0000042	IC	1	
IC502,03	AN2018S	IC	2	
IC504	C1AB00000502	IC	1	
IC505	TA75W01FU	IC	1	
IC506	AN2018S	IC	1	
IC507	MB88344PFV	IC	1	C0FBBD000096

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC508	C0DBZGA00009	IC	1	
IC509	NJM2902V	IC	1	
IC510	C3EBFG000004	IC	1	
L101,02	VLQ0807K100	COIL 10UH	2	G1C100K00024
L106-08	VLQ0807K100	COIL 10UH	3	G1C100K00024
L114	G1C330KA0004	COIL 330UH	1	
L501	VLQ0807K100	COIL 10UH	1	G1C100K00024
L502-04	G1C330KA0004	COIL 330UH	3	
L505,06	VLQ0807K100	COIL 10UH	2	G1C100K00024
L507	G1C6R8M00004	COIL 6.8UH	1	
L512	VLQ0807K100	COIL 10UH	1	G1C100K00024
L513	G1C6R8M00004	COIL 6.8UH	1	
LB101	VLP0154	COIL	1	J0JCC0000058
LB102,03	VLF1144A102	FILTER	2	
PP101	K1KA26A00078	CONNECTOR (MALE)	1	
Q501-03	2SB1462JHL	TRANSISTOR	3	
Q504	2SB1073	TRANSISTOR	1	
Q505	2SD2216J0L	TRANSISTOR	1	
Q506	2SB1462JHL	TRANSISTOR	1	
Q507-09	2SD2216J0L	TRANSISTOR	3	
Q510	2SB0970X0L	TRANSISTOR	1	
QR501-06	UNR9212J0L	TRANSISTOR	6	
R101	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R102	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R104	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R105	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R111	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R112	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R113	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R114,15	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	2	
R116	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R117,18	ERJ2GEJ271	M.RESISTOR CH 1/16W 270	2	
R127	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R131	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R135	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R138,39	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	2	
R142	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R146	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R147	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	1	
R148-53	ERJ2GEJ330	M.RESISTOR CH 1/16W 33	6	
R501,02	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	2	
R503-07	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	5	
R508	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	1	
R509	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R510	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	1	
R511	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R512	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	1	
R513	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R514	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R515	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R516	ERJ2RHD153	M.RESISTOR CH 1/16W 15K	1	
R517	ERJ2RHD102	M.RESISTOR CH 1/16W 1K	1	
R518	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R519	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R520,21	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	2	
R522	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R523	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R524	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R525	ERJ2RHD513	M.RESISTOR CH 1/16W 51K	1	
R526	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R527	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R528	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R529	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R530	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R531	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R532	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R533,34	ERJ2RHD513	M.RESISTOR CH 1/16W 51K	2	
R535	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R536	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R537,38	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	2	
R539	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	1	
R540	ERJ2RHD133	M.RESISTOR CH 1/16W 13K	1	
R541	ERJ2RHD183	M.RESISTOR CH 1/16W 18K	1	
R542	ERJ2RHD133	M.RESISTOR CH 1/16W 13K	1	
R543-45	ERJ2GEJ271	M.RESISTOR CH 1/16W 270	3	
R546	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R547	ERJ2RHD102	M.RESISTOR CH 1/16W 1K	1	
R548	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R549	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R550	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R551	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R552	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R553	ERJ2RHD393	M.RESISTOR CH 1/16W 39K	1	
R554	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R555	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R556	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R557,58	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	2	
R559	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R560-62	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	3	
R563-65	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	3	
R566	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R567	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R568	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R569	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R570	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R571	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R572	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R573	ERJ2RHD163	M.RESISTOR CH 1/16W 16K	1	
R574	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R575	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R576	ERJ2GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R577	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R578	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R579	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R580	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R581	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	1	
R582	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R585	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R586,87	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	2	
R588	ERJ2GEJ821	M.RESISTOR CH 1/16W 820	1	
R589-91	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	3	
R592,93	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	2	
W101	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
W105-07	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	3	
W109	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
W112	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
W114	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
X101	H1A3155B0001	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VGQ2184	TAPE	1	
	VGQ4731	BARRIER	1	
■ E24	VEP01896A	SUB POWER C.B.A.	1	(RTL)
C1501	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C1502	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C1504,05	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C1506	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C1508	ECUX1C105KBN	C.CAPACITOR CH 10V 1U	1	
C1509	ECUM1C334KBN	C.CAPACITOR CH 16V 0.33U	1	
C1510	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C1511	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1512	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C1513	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C1514	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C1515	EEVHB1H2R2	E.CAPACITOR 50V 2.2U	1	
C1516	ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C1517	EEVHB1H2R2	E.CAPACITOR 50V 2.2U	1	
C1518	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	F1H1H102A009
C1519	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1521	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	F1H1H102A009
C1522	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C1524	ECUX1A105KBV	C.CAPACITOR CH 10V 1U	1	
C1525	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1526	ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C1527	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C1528,29	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	2	
C1530	ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C1531	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1532	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	F1H1H102A009
C1533	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C1534	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	1	
C1535	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C1536	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C1539	VCK0303K225	C.CAPACITOR 2.2U	1	
C1541	ECUX1C225KBM	C.CAPACITOR CH 16V 2.2U	1	
C1542	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C1544	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	F1H1H102A009
C1545	EEAFC1C560	E.CAPACITOR 16V 56U	1	
C1547,48	ECUX1A225KBM	C.CAPACITOR CH 10V 2.2U	2	
C1549	ECUX1E334KBM	C.CAPACITOR CH 25V 0.33U	1	
C1550	ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C1551	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	1	
C1552	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1553	EEAFC1C560	E.CAPACITOR 16V 56U	1	
C1554	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C1555,56	EEAFC1C560	E.CAPACITOR 16V 56U	2	
C1557	ECUX1E334KBM	C.CAPACITOR CH 25V 0.33U	1	
C1567	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C1568	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1701,02	ECUX1A105KBV	C.CAPACITOR CH 10V 1U	2	
C1704	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C1705	ECUX1A105KBV	C.CAPACITOR CH 10V 1U	1	
C1706	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C1707	ECUX1A105KBV	C.CAPACITOR CH 10V 1U	1	
C1708	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C1709	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	
C1710-12	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	3	
D1501	MA8056-MH	DIODE	1	
D1502	DE5SC4M-4061	DIODE	1	
D1503-06	MA132WK	DIODE	4	
D1507	MA111	DIODE	1	
D1508	B0JCMD000004	DIODE	1	
D1509	MA720	DIODE	1	
D1510,11	MA111	DIODE	2	
D1512	MAZ82200ML	DIODE	1	
D1513	MA147	DIODE	1	
D1514	MA720	DIODE	1	
D1516	MA720	DIODE	1	
D1701,02	MA8120-M	DIODE	2	
D1703-05	MA132WK	DIODE	3	
D1707	MA8062-MH	DIODE	1	
D1708	MA1070400L	DIODE	1	
D1710,11	MA132WK	DIODE	2	
IC1501	BA9706K	IC	1	C0DBAZZ00012
IC1502	BA9743AFV	IC	1	
IC1503	TA75W393FU	IC	1	
IC1702	TC7S00FU	IC	1	
IC1703	AN77L03M	IC	1	
L1501	VLP0353	COIL	1	
L1503,04	VLP0353	COIL	2	
L1505	G1C4R7M00009	COIL 4.7UH	1	
L1506	VLQ0319K100	COIL 10UH	1	G1C100K00023
L1507	G1A220F00006	COIL 22UH	1	
L1508	G1A331C00002	COIL 330UH	1	
L1509	VLQ0319K100	COIL 10UH	1	G1C100K00023
L1510	VLQ0319K101	COIL 100UH	1	G1C101K00022

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
L1511	G1A331C00002	COIL 330UH	1	
L1512	G1A102B00003	COIL 1000UH	1	
L1513	VLQ0319K100	COIL 10UH	1	G1C100K00023
L1701-03	VLQ0319K100	COIL 10UH	3	G1C100K00023
L1705-07	VLQ0319K100	COIL 10UH	3	G1C100K00023
P1501	VJP1232T	CONNECTOR (MALE) 5P	1	
P1701	VJP1232T	CONNECTOR (MALE) 5P	1	
P1702	K1MN16A00028	CONNECTOR	1	
Q1501	2SD2216J	TRANSISTOR	1	
Q1502	B1ADCF000059	TRANSISTOR	1	
Q1503	8P2M	DIODE	1	B2AAJM000001
Q1505	2SD221000L	TRANSISTOR	1	
Q1506	2SB10730LL	TRANSISTOR	1	
Q1510	2SD2216J	TRANSISTOR	1	
Q1511	2SB766A-R	TRANSISTOR	1	
Q1512	2SD221000L	TRANSISTOR	1	
Q1513	XP4601	TRANSISTOR-RESISTOR	1	
Q1701	B1ABCF000077	TRANSISTOR	1	
Q1702	B1HDCFA00002	TRANSISTOR	1	
Q1703	B1ADCF000059	TRANSISTOR	1	
Q1704	B1HBCFD00001	TRANSISTOR	1	
Q1705	XP4601	TRANSISTOR-RESISTOR	1	
Q1706	2SD2216J	TRANSISTOR	1	
Q1707	B1ADCF000059	TRANSISTOR	1	
Q1708	2SD2216J	TRANSISTOR	1	
QR1501	UN9217	TRANSISTOR-RESISTOR	1	
QR1502	UN9213	TRANSISTOR-RESISTOR	1	
QR1503	UN9112J	TRANSISTOR	1	
QR1504	UNR9113J0L	TRANSISTOR	1	
QR1505	UN9213	TRANSISTOR-RESISTOR	1	
QR1506	UN9112J	TRANSISTOR	1	
QR1701	UNR9113J0L	TRANSISTOR	1	
QR1702,03	UN2130X	TRANSISTOR-RESISTOR	2	
QR1704	UN9112J	TRANSISTOR	1	
R1501	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R1502	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1503	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1504,05	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R1507	ERJ12Y0R00	M.RESISTOR CH 1/2W 0	1	
R1509	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1510	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
⚠ R1511	K5H312300003	FUSE	1	
R1512	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R1513	ERJ3GEYJ684	M.RESISTOR CH 1/16W 680K	1	
R1514	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1515	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1516	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1517	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1519	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R1520	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R1521	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1522	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1523	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
⚠ R1524	K5H1223A0001	FUSE	1	
R1525	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1527	ERJ3RBD393	M.RESISTOR CH 1/16W 39K	1	
R1528	ERJ3RBD363	M.RESISTOR CH 1/16W 36K	1	
R1531	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R1533	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R1535	ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R1536,37	ERJ3RBD182	M.RESISTOR CH 1/16W 1.8K	2	
R1538	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1539	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1540	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R1541	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1542	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R1543	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1545,46	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	2	
R1547	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1550	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R1551	ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R1552	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1553,54	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	2	
R1555	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R1557	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R1558	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R1559	ERJ3RBD181	M.RESISTOR CH 1/16W 180	1	
R1560	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R1561	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R1562	ERJ3RBD152	M.RESISTOR CH 1/16W 1.5K	1	
R1563	ERJ3RBD183	M.RESISTOR CH 1/16W 18K	1	
R1564	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R1565	ERJ3RBD822	M.RESISTOR CH 1/16W 8.2K	1	
R1566	ERJ3RBD152	M.RESISTOR CH 1/16W 1.5K	1	
R1567	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	1	
R1568	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R1569	ERJ3RED244	M.RESISTOR CH 1/16W 240K	1	
R1570	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R1571	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1572	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1573	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1574	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R1575,76	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R1577	ERJ3RBD822	M.RESISTOR CH 1/16W 8.2K	1	
R1578	ERJ3RED270	M.RESISTOR CH 1/16W 27	1	
R1579	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R1580	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R1581	ERJ3RBD561	M.RESISTOR CH 1/16W 560	1	
R1582	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R1584	ERJ8GEYJ330	M.RESISTOR CH 1/8W 33	1	
R1585	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1586	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	1	
R1587	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1588	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R1589	ERJ6GEYF472	M.RESISTOR CH 1/10W 4.7K	1	
R1590	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R1591	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1592	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1593,94	ERJ6GEYG332	M.RESISTOR CH 1/10W 3.3K	2	
R1595	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	1	
R1596	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1597	ERJ12Y0R00	M.RESISTOR CH 1/2W 0	1	
R1601,02	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R1604	ERJ3RBD302	M.RESISTOR CH 1/16W 3K	1	
R1607-10	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	4	
R1702	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R1703	ERJ3GEYJ274	M.RESISTOR CH 1/16W 270K	1	
R1704	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R1706	ERJ3RBD823	M.RESISTOR CH 1/16W 82K	1	
R1707	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	
R1708	ERJ3RED514	M.RESISTOR CH 1/16W 510K	1	
R1709	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R1710	ERJ3GEYJ133	M.RESISTOR CH 1/16W 13K	1	
R1711	ERJ3RED274	M.RESISTOR CH 1/16W 240K	1	
R1712	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R1713	ERJ3RBD391	M.RESISTOR CH 1/16W 390	1	
R1714	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1715	ERJ3RBD683	M.RESISTOR CH 1/16W 68K	1	
R1716	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1717,18	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R1719	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R1720,21	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R1722	ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R1723	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1725-29	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	5	
T1501	G5DYA0000025	TRANSFORMER	1	
TG1701	EYF6CU	TEST POINT	1	
		MISCELLANEOUS		
	VSC5247	SUB POWER SHIELD PLATE	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E25	VEP000T7A	ZOOM C.B.A.	1	(RTL)
P4001	VJP3950A007D	CONNECTOR (MALE)	1	
SW4001	K0H1BA000399	SWITCH	1	
SW4002,03	K0H1BA000105	SWITCH	2	
■ E26	VEP000T8A	EVR EXT C.B.A.	1	(RTL)
P21,22	K1KA60A00065	CONNECTOR	2	
P23	VJS3452A008	CONNECTOR (FEMALE)	1	
		MISCELLANEOUS		
	VMP6854	EVR HOLDER ANGLE	1	
	XYN2+J6	SCREW	2	
■ E27	VEP000T9A	SW C.B.A.	1	(RTL)
P601	VJS3452A008	CONNECTOR (FEMALE)	1	
R601-06	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	6	
R607,08	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
SW601,02	VSS0279	SWITCH	2	K0D112A00094
SW603	VSS0220	SWITCH	1	K0D123A00062
SW604	VSP1031	SWITCH	1	K0H1BA000328
■ E28	VEP04777A	MIC AMP C.B.A.	1	(RTL)
C4701-04	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	4	
C4705,06	EEVHB1C100	E.CAPACITOR 16V 10U	2	
C4707,08	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C4709-12	EEVHB1H100P	E.CAPACITOR 50V 10U	4	
C4713,14	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C4719-22	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C4723-27	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	5	
C4728,29	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C4730	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C4731,32	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C4733	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C4734	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C4735	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C4736-40	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C4741-44	EEVHB0J470	E.CAPACITOR 6.3V 47U	4	
C4745,46	EEVHB1C470	E.CAPACITOR 16V 47U	2	
C4747-50	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C4751-54	EEVHB0J470	E.CAPACITOR 6.3V 47U	4	
C4807,08	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
D4701-04	MA3J14300L	DIODE	4	
D4705,06	MA716	DIODE	2	
IC4701,02	TVSA0021	IC	2	C0ABBA000042
IC4705-07	NJM2122M	IC	3	
IC4709	NJM2122M	IC	1	
IC4710	MC14053BDT	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC4711	NJM79L05UA	IC	1	
IC4712,13	NJM78L05UA	IC	2	C0CBADC00010
IC4714	NJM79L05UA	IC	1	
J4801,02	VJS3551A	AUDIO IN CONNECTOR	2	K1AB103B0012
L4701-04	VLQ0163J100	COIL 10UH	4	
L4801	VLF1315A102	FILTER	1	J0JHC0000015
L4803	VLF1315A102	FILTER	1	J0JHC0000015
L4805	VLF1315A102	FILTER	1	J0JHC0000015
L4807,08	VLF1315A102	FILTER	2	J0JHC0000015
L4810	VLF1315A102	FILTER	1	J0JHC0000015
P4801	VJP3172B010	CONNECTOR (MALE)	1	
P4802	VJS3320B016	CONNECTOR (FEMALE)	1	K1MN16B00045
R4703	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4706,07	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R4708	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4709	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4710	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4711-14	ERJ3RBD273	M.RESISTOR CH 1/16W 27K	4	
R4715-18	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	4	
R4719	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R4720	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R4723	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R4724,25	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	2	
R4726-30	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	5	
R4731	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R4732	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R4735,36	ERJ3RBD241	M.RESISTOR CH 1/16W 240	2	
R4737-45	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	9	
R4746	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4747	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R4748	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4749,50	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	2	
R4753,54	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R4755,56	ERJ3RED330	M.RESISTOR CH 1/16W 33	2	
R4759-62	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	
R4801-05	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	5	
SW4701,02	K0D142B00022	SWITCH	2	
TP4701,02	EYF6CU	TEST POINT	2	
		MISCELLANEOUS		
	VSC5239	SHIELD CASE (UPPER)	1	
	XYN3+K6	SCREW	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks

SECTION 8

CIRCUIT BOARD DIAGRAMS

NOTE:
DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

CAUTION

THE ☐ MARK INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

CONTENTS

VTR MAIN C.B.A. (VEP03E35C)........ CBA-1
MOTHER C.B.A. (VEP000T6A)........ CBA-4
POWER C.B.A. (VEP01801C)........ CBA-6
DRIVE C.B.A. (VEP02561A)........ CBA-7
CAMERA MAIN C.B.A. (VEP23443B)........ CBA-8
CAMERA OPERATION C.B.A. (VEP20737B)........ CBA-9
E.V.F. (A) C.B.A. (VEP28240D)........ CBA-10
E.V.F. (B) C.B.A. (VEP28244B)........ CBA-10
HEAD AMP C.B.A. (VEP05352A)........ CBA-11
FRONT C.B.A. (VEP04684A)........ CBA-12
TOP OPERATION C.B.A. (VEP06C24A)........ CBA-13
MIC C.B.A. (VEP04693A)........ CBA-13
REAR OPERATION C.B.A. (VEP06C37A)........ CBA-14
ZOOM C.B.A. (VEP000T7A)........ CBA-15
EVR EXT C.B.A. (VEP000T8A)........ CBA-15
EVF INT C.B.A. (VEP000U4A)........ CBA-15
MIC AMP C.B.A. (VEP04777A)........ CBA-16
JACK C.B.A. (VEP04778A)........ CBA-17
SUB POWER C.B.A. (VEP01896A)........ CBA-18
LCD CONTROL C.B.A. (VEP06E27A)........ CBA-19
SW C.B.A. (VEP000T9A)........ CBA-19

VTR MAIN C.B.A (VEP03E35C)

VTR MAIN C.B.A. (1)

Integrated Circuit

IC601	D-3	Ⓕ
IC602	D-3	Ⓕ
IC603	D-6	Ⓒ
IC604	D-4	Ⓒ
IC605	C-7	Ⓒ
IC606	C-6	Ⓒ
IC2001	B-3	Ⓒ
IC2002	B-5	Ⓕ
IC2003	B-4	Ⓕ
IC2004	B-4	Ⓕ
IC2005	A-3	Ⓒ
IC2006	A-5	Ⓒ
IC2007	A-5	Ⓕ
IC2008	B-5	Ⓕ
IC2009	B-7	Ⓕ
IC2010	A-6	Ⓕ
IC2011	B-2	Ⓒ
IC2012	C-4	Ⓒ
IC2013	B-6	Ⓕ
IC2014	A-5	Ⓕ
IC2015	D-7	Ⓕ
IC3001	C-2	Ⓒ
IC3002	C-4	Ⓒ
IC3003	C-4	Ⓕ
IC3004	C-3	Ⓒ
IC3005	D-5	Ⓕ
IC3006	C-2	Ⓕ
IC3007	D-6	Ⓕ
IC3201	C-5	Ⓒ
IC3202	C-6	Ⓒ
IC3203	A-3	Ⓕ
IC3204	C-3	Ⓕ
IC3205	A-5	Ⓒ
IC3801	C-6	Ⓕ
IC4001	A-6	Ⓒ
IC4201	B-6	Ⓒ
IC4501	B-3	Ⓕ
IC4701	A-1	Ⓒ
IC6501	A-6	Ⓕ
IC6502	A-6	Ⓕ
IC6503	A-6	Ⓕ
IC6505	D-6	Ⓕ
IC6506	D-6	Ⓕ

Transistor

Q601	C-2	Ⓕ
Q602	C-2	Ⓕ
Q603	C-5	Ⓒ
Q604	C-2	Ⓕ
Q605	C-1	Ⓕ
Q606	B-1	Ⓕ
Q608	B-1	Ⓕ
Q609	D-5	Ⓒ
Q610	C-7	Ⓒ
Q611	C-1	Ⓕ
Q2001	B-5	Ⓕ
Q2002	A-2	Ⓒ
Q2003	A-4	Ⓕ
Q2006	B-4	Ⓕ
Q2008	B-4	Ⓒ
Q3001	B-3	Ⓒ
Q3002	C-3	Ⓒ
Q3201	A-3	Ⓕ
Q3202	B-2	Ⓕ
Q3203	A-3	Ⓕ
Q3204	A-4	Ⓕ
Q4001	A-2	Ⓕ
Q4701	A-1	Ⓕ
Q4702	A-1	Ⓕ

Transistor & Resistor

QR601	C-7	Ⓒ
QR602	C-3	Ⓕ
QR604	A-1	Ⓕ
QR605	A-1	Ⓕ
QR606	C-1	Ⓕ
QR607	C-1	Ⓕ
QR2001	B-7	Ⓕ
QR2002	A-2	Ⓒ
QR2003	A-3	Ⓒ
QR2004	A-4	Ⓕ
QR2005	A-4	Ⓕ
QR2006	A-1	Ⓒ
QR2007	A-5	Ⓕ
QR2008	B-4	Ⓒ
QR2009	B-5	Ⓕ
QR2010	B-6	Ⓕ
QR2011	B-7	Ⓕ
QR2012	C-4	Ⓒ
QR2013	C-4	Ⓒ
QR3001	B-3	Ⓒ
QR4001	B-2	Ⓕ
QR4002	B-2	Ⓕ
QR4003	B-2	Ⓕ
QR4201	B-6	Ⓒ
QR4703	A-2	Ⓕ

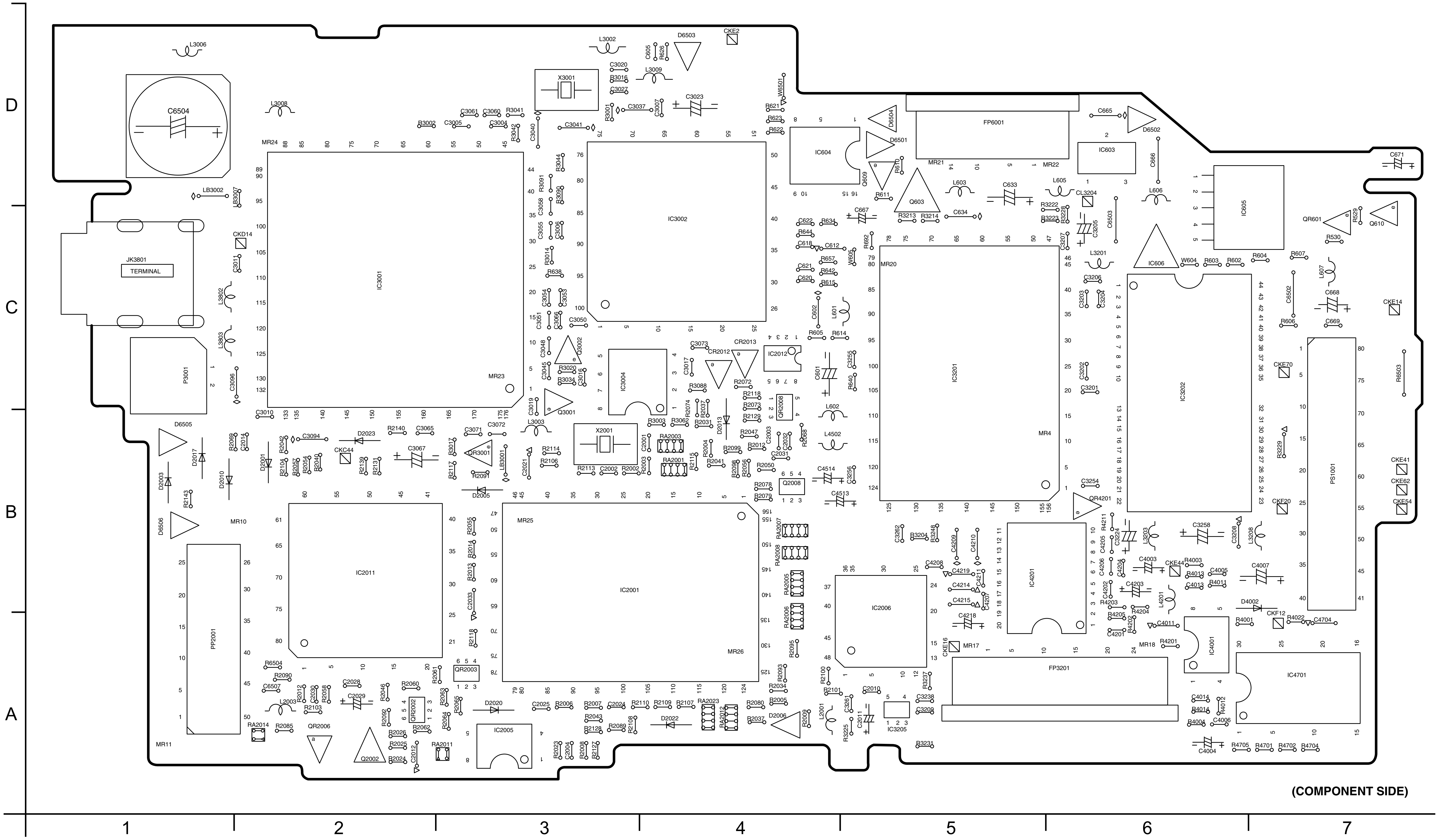
Test Point

CKC43	B-5	Ⓕ
CKC44	B-2	Ⓒ
CKC45	A-6	Ⓕ
CKC46	A-5	Ⓕ
CKC47	C-7	Ⓕ
CKC48	C-5	Ⓕ
CKC49	C-7	Ⓕ
CKC50	A-5	Ⓕ
CKC51	B-6	Ⓕ
CKD3	C-5	Ⓕ
CKD6	C-5	Ⓕ
CKD7	D-5	Ⓕ
CKD11	C-5	Ⓕ
CKD12	C-6	Ⓕ
CKD13	C-6	Ⓕ
CKD14	C-2	Ⓒ
CKD62	D-6	Ⓕ
CKD70	D-6	Ⓕ
CKD71	D-6	Ⓕ
CKD72	D-6	Ⓕ
CKD78	D-5	Ⓕ
CKD79	D-5	Ⓕ
CKD80	D-5	Ⓕ
CKE2	D-4	Ⓒ
CKE14	C-7	Ⓒ
CKE16	A-5	Ⓒ
CKE20	B-7	Ⓒ
CKE41	B-7	Ⓒ
CKE44	B-6	Ⓒ
CKE54	B-7	Ⓒ
CKE58	B-1	Ⓕ
CKE62	B-7	Ⓒ
CKE64	D-1	Ⓕ
CKE66	D-1	Ⓕ
CKE70	C-7	Ⓒ
CKF11	A-1	Ⓕ
CKF12	A-7	Ⓒ
CKF13	A-1	Ⓕ
CKG1	A-7	Ⓕ
CKG5	A-5	Ⓕ
CL3001	D-6	Ⓕ
CL3002	C-5	Ⓕ
CL3004	C-4	Ⓕ
CL3202	B-3	Ⓕ
CL3203	C-4	Ⓕ
CL3204	C-4	Ⓒ

Diode

D2001	B-2	Ⓒ
D2002	B-6	Ⓕ
D2003	B-1	Ⓒ
D2004	A-5	Ⓕ
D2005	B-3	Ⓒ
D2006	A-4	Ⓒ
D2007	A-4	Ⓕ
D2010	B-1	Ⓒ
D2011	A-5	Ⓕ
D2012	B-5	Ⓕ
D2013	B-4	Ⓒ
D2015	A-3	Ⓕ
D2016	A-4	Ⓕ
D2017	B-1	Ⓒ
D2018	A-4	Ⓕ
D2020	A-3	Ⓒ
D2021	A-5	Ⓕ
D2022	A-4	Ⓒ
D2023	B-2	Ⓒ
D2024	B-5	Ⓕ
D2025	B-6	Ⓕ
D3201	A-3	Ⓕ
D3202	A-4	Ⓕ
D4001	B-1	Ⓕ
D4002	A-7	Ⓒ
D6501	D-5	Ⓒ
D6502	D-6	Ⓒ

ADDRESS INFORMATION Ⓒ... COMPONENT SIDE Ⓕ... FOIL SIDE


D
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C6504
L3006
L3008
L3002
D6503
CKE2
X3001
FP6001
IC604
IC603
IC605
IC606
JK3801
TERMINAL
P3001
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IC3002
IC3004
IC3201
IC3202
PS1001
IC2011
IC2001
PP2001
IC2005
IC2006
IC4201
FP3201
IC4001
IC4701
IC3205
IC2012
X2001
Q603
QR601
Q610
Q3001
Q3002
QR3001
QR2006
Q2002
QR2003
QR2002
QR4201
D6505
D6506
D6501
D6502
D6504
MR10
MR11
MR23
MR24
MR25
MR26
MR4
MR17
MR18
MR20
MR21
MR22
(COMPONENT SIDE)

VTR MAIN C.B.A. (2)

D6503	D-4	Ⓒ
D6504	D-5	Ⓒ
D6505	B-1	Ⓒ
D6506	B-1	Ⓒ
Connector		
FP3201	A-6	Ⓒ
FP4001	B-1	Ⓕ
FP6001	D-5	Ⓒ
FP6002	A-7	Ⓕ
P3001	C-1	Ⓒ
PP2001	A-1	Ⓒ
PP3001	A-6	Ⓕ
PP3002	B-2	Ⓕ
PS1001	B-7	Ⓒ
PS3001	C-2	Ⓕ
PS3002	C-6	Ⓕ
JK3801	C-1	Ⓒ
Coil		
L601	C-5	Ⓒ
L602	B-4	Ⓒ
L603	D-5	Ⓒ
L605	D-6	Ⓒ
L606	D-6	Ⓒ
L607	C-7	Ⓒ
L2001	A-4	Ⓒ
L2002	B-5	Ⓕ
L2003	A-2	Ⓒ
L3002	D-3	Ⓒ
L3003	B-3	Ⓒ
L3004	C-5	Ⓕ
L3005	D-4	Ⓕ
L3006	D-1	Ⓒ
L3008	D-2	Ⓒ
L3009	D-4	Ⓒ
L3010	B-2	Ⓕ
L3011	B-2	Ⓕ
L3201	C-6	Ⓒ
L3202	A-3	Ⓕ
L3203	B-6	Ⓒ
L3204	B-3	Ⓕ
L3205	B-2	Ⓕ
L3206	B-3	Ⓕ
L3207	B-2	Ⓕ
L3208	B-7	Ⓒ
L3209	A-4	Ⓕ
L3801	C-5	Ⓕ
L3802	C-1	Ⓒ
L3803	C-1	Ⓒ
L3901	A-2	Ⓕ
L4001	B-1	Ⓕ
L4201	B-6	Ⓒ
L4202	B-2	Ⓕ
L4502	B-5	Ⓒ
L6501	B-6	Ⓕ
L6502	C-1	Ⓕ
LB3001	B-3	Ⓒ
LB3002	D-1	Ⓒ
LB3003	B-4	Ⓕ
LB3004	D-4	Ⓕ
LB3005	D-5	Ⓕ
LB3006	D-5	Ⓕ
LB3007	D-2	Ⓒ
Crystal Oscillator		
X2001	B-3	Ⓒ
X2002	C-5	Ⓕ
X2003	A-6	Ⓕ
X3001	D-3	Ⓒ
X3003	C-4	Ⓕ
Capacitor		
C601	C-4	Ⓒ
C602	C-4	Ⓒ
C603	D-4	Ⓕ
C604	D-4	Ⓕ
C605	D-4	Ⓒ
C606	D-4	Ⓕ
C607	D-4	Ⓕ
C608	D-3	Ⓕ
C609	D-4	Ⓕ
C610	D-3	Ⓕ
C611	D-3	Ⓕ
C612	C-4	Ⓒ
C613	D-3	Ⓕ
C614	D-3	Ⓕ
C615	C-3	Ⓕ
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C617	D-3	Ⓕ
C618	C-4	Ⓒ
C619	D-3	Ⓕ
C620	C-4	Ⓒ
C621	C-4	Ⓒ
C622	C-4	Ⓒ
C623	D-4	Ⓕ
C624	D-4	Ⓕ
C625	D-4	Ⓕ
C626	C-4	Ⓕ
C630	C-3	Ⓕ
C631	D-4	Ⓕ
C632	D-4	Ⓕ
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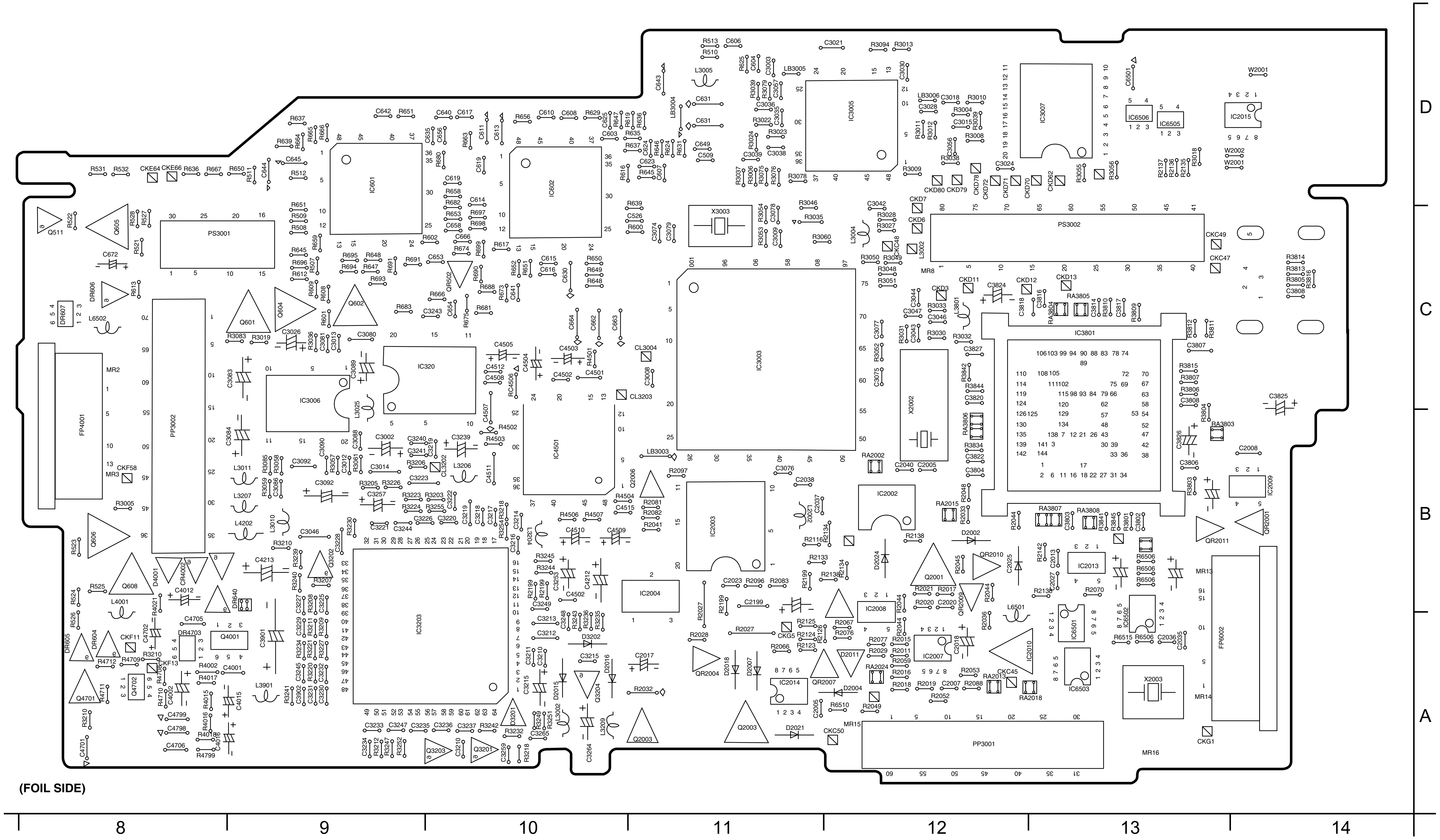
C669	C-7	Ⓒ
C671	D-7	Ⓒ
C672	C-1	Ⓕ
C2001	B-4	Ⓒ
C2002	B-3	Ⓒ
C2003	B-4	Ⓒ
C2004	A-3	Ⓒ
C2005	A-5	Ⓕ
C2006	B-5	Ⓕ
C2007	A-5	Ⓕ
C2008	B-7	Ⓕ
C2009	B-7	Ⓕ
C2010	A-5	Ⓒ
C2011	A-5	Ⓒ
C2012	A-2	Ⓒ
C2013	B-6	Ⓕ
C2014	B-2	Ⓒ
C2015	B-6	Ⓕ
C2016	A-4	Ⓕ
C2017	A-4	Ⓕ
C2018	A-5	Ⓕ
C2019	B-5	Ⓕ
C2020	B-5	Ⓕ
C2021	B-3	Ⓒ
C2023	B-4	Ⓕ
C2024	A-3	Ⓒ
C2025	A-3	Ⓒ
C2026	B-6	Ⓕ
C2027	B-6	Ⓕ
C2028	A-2	Ⓒ
C2029	A-2	Ⓒ
C2030	A-2	Ⓒ
C2031	B-4	Ⓒ
C2032	B-4	Ⓒ
C2033	B-3	Ⓒ
C2034	B-5	Ⓕ
C2035	A-7	Ⓕ
C2036	A-6	Ⓕ
C2037	B-5	Ⓕ

ADDRESS INFORMATION Ⓒ... COMPONENT SIDE Ⓕ... FOIL SIDE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VTR MAIN C.B.A. (3)

C2038	B-5 Ⓕ	C3203	C-6 Ⓒ	C4001	A-2 Ⓕ	R603	C-6 Ⓒ	R2014	B-3 Ⓒ	R2103	A-2 Ⓒ	R3056	D-6 Ⓕ	R3842	C-5 Ⓕ
C2040	B-5 Ⓕ	C3204	C-6 Ⓒ	C4002	A-2 Ⓕ	R604	C-7 Ⓒ	R2015	A-5 Ⓕ	R2104	B-2 Ⓒ	R3057	B-2 Ⓕ	R3844	C-5 Ⓕ
C2041	B-4 Ⓒ	C3205	C-6 Ⓒ	C4003	B-6 Ⓒ	R605	C-4 Ⓒ	R2016	A-5 Ⓕ	R2106	B-3 Ⓒ	R3058	B-2 Ⓕ	R3845	B-6 Ⓕ
C2042	B-4 Ⓕ	C3206	C-6 Ⓒ	C4004	A-6 Ⓒ	R606	C-7 Ⓒ	R2017	B-5 Ⓕ	R2107	A-4 Ⓒ	R3059	B-2 Ⓕ	R4001	A-7 Ⓒ
C2199	B-4 Ⓕ	C3207	C-6 Ⓒ	C4005	B-6 Ⓒ	R607	C-7 Ⓒ	R2018	A-5 Ⓕ	R2108	A-3 Ⓒ	R3060	C-5 Ⓕ	R4002	A-2 Ⓕ
C3002	B-3 Ⓕ	C3208	B-6 Ⓒ	C4006	A-6 Ⓒ	R608	C-2 Ⓕ	R2019	A-5 Ⓕ	R2109	A-4 Ⓒ	R3061	B-2 Ⓕ	R4003	B-6 Ⓒ
C3003	D-4 Ⓕ	C3209	A-5 Ⓒ	C4007	B-7 Ⓒ	R609	C-2 Ⓕ	R2020	B-5 Ⓕ	R2110	A-4 Ⓒ	R3062	B-4 Ⓒ	R4004	A-6 Ⓒ
C3004	D-3 Ⓒ	C3210	A-3 Ⓕ	C4011	A-6 Ⓒ	R610	D-5 Ⓒ	R2021	B-5 Ⓕ	R2113	B-3 Ⓒ	R3075	D-4 Ⓕ	R4011	B-6 Ⓒ
C3005	D-3 Ⓒ	C3211	A-3 Ⓕ	C4012	B-2 Ⓕ	R611	D-5 Ⓒ	R2022	B-5 Ⓕ	R2114	B-3 Ⓒ	R3076	D-5 Ⓕ	R4012	A-6 Ⓒ
C3006	C-3 Ⓒ	C3212	A-3 Ⓕ	C4013	B-6 Ⓒ	R612	C-2 Ⓕ	R2023	A-3 Ⓒ	R2115	B-4 Ⓒ	R3078	D-5 Ⓕ	R4013	B-6 Ⓒ
C3007	D-4 Ⓒ	C3213	A-3 Ⓕ	C4014	A-6 Ⓒ	R613	C-1 Ⓕ	R2024	A-2 Ⓒ	R2116	B-5 Ⓕ	R3079	D-4 Ⓕ	R4014	A-6 Ⓒ
C3008	C-4 Ⓕ	C3214	B-3 Ⓕ	C4015	A-2 Ⓕ	R614	C-5 Ⓒ	R2025	A-2 Ⓒ	R2117	B-3 Ⓒ	R3083	C-2 Ⓕ	R4015	A-2 Ⓕ
C3009	C-4 Ⓕ	C3215	A-3 Ⓕ	C4016	A-2 Ⓕ	R615	C-4 Ⓒ	R2026	A-2 Ⓒ	R2118	A-3 Ⓒ	R3085	B-2 Ⓕ	R4016	A-2 Ⓕ
C3010	B-2 Ⓒ	C3216	B-3 Ⓕ	C4201	A-6 Ⓒ	R616	D-4 Ⓕ	R2027	A-4 Ⓕ	R2119	C-4 Ⓒ	R3086	C-4 Ⓕ	R4017	A-2 Ⓕ
C3011	C-2 Ⓒ	C3217	B-3 Ⓕ	C4202	B-6 Ⓒ	R617	C-3 Ⓕ	R2028	A-4 Ⓕ	R2121	A-5 Ⓕ	R3090	D-3 Ⓒ	R4018	A-2 Ⓕ
C3012	B-2 Ⓕ	C3218	B-3 Ⓕ	C4203	B-6 Ⓒ	R619	D-4 Ⓕ	R2029	A-5 Ⓕ	R2122	B-5 Ⓕ	R3091	D-3 Ⓒ	R4021	B-1 Ⓕ
C3013	C-2 Ⓕ	C3219	B-3 Ⓕ	C4204	B-6 Ⓒ	R621	D-4 Ⓒ	R2031	B-4 Ⓒ	R2123	A-5 Ⓕ	R3094	D-5 Ⓕ	R4022	A-7 Ⓒ
C3015	D-5 Ⓕ	C3220	B-3 Ⓕ	C4205	B-6 Ⓒ	R622	D-4 Ⓕ	R2033	B-5 Ⓕ	R2124	A-5 Ⓕ	R3203	B-3 Ⓕ	R4201	A-6 Ⓒ
C3016	C-3 Ⓒ	C3221	B-3 Ⓕ	C4206	B-6 Ⓒ	R623	D-4 Ⓒ	R2034	A-4 Ⓒ	R2125	A-5 Ⓕ	R3204	B-5 Ⓒ	R4202	A-6 Ⓒ
C3017	C-4 Ⓒ	C3222	B-3 Ⓕ	C4207	B-5 Ⓒ	R624	D-4 Ⓕ	R2035	B-6 Ⓕ	R2126	A-5 Ⓕ	R3205	B-2 Ⓕ	R4203	A-6 Ⓒ
C3018	D-5 Ⓕ	C3223	B-3 Ⓕ	C4208	B-5 Ⓒ	R625	D-4 Ⓕ	R2036	A-6 Ⓕ	R2127	A-3 Ⓒ	R3206	B-3 Ⓕ	R4204	A-6 Ⓒ
C3019	B-3 Ⓒ	C3224	B-6 Ⓒ	C4209	B-5 Ⓒ	R626	D-4 Ⓒ	R2037	A-4 Ⓒ	R2128	A-3 Ⓒ	R3207	B-2 Ⓕ	R4205	A-6 Ⓒ
C3020	D-3 Ⓒ	C3225	B-2 Ⓕ	C4210	B-5 Ⓒ	R629	D-4 Ⓕ	R2038	B-6 Ⓕ	R2129	B-4 Ⓒ	R3208	B-2 Ⓕ	R4211	B-6 Ⓒ
C3021	D-5 Ⓕ	C3226	B-3 Ⓕ	C4211	B-5 Ⓒ	R631	D-4 Ⓕ	R2039	B-6 Ⓕ	R2130	B-5 Ⓕ	R3209	A-2 Ⓕ	R4501	C-4 Ⓕ
C3022	D-5 Ⓕ	C3227	B-2 Ⓕ	C4212	B-4 Ⓕ	R634	C-4 Ⓒ	R2040	B-2 Ⓒ	R2133	B-5 Ⓕ	R3210	A-2 Ⓕ	R4502	B-3 Ⓕ
C3023	D-4 Ⓒ	C3228	B-2 Ⓕ	C4213	B-2 Ⓕ	R635	D-4 Ⓕ	R2041	B-4 Ⓕ	R2134	B-5 Ⓕ	R3211	A-2 Ⓕ	R4503	B-3 Ⓕ
C3024	D-6 Ⓕ	C3229	A-2 Ⓕ	C4214	B-5 Ⓒ	R636	D-4 Ⓕ	R2042	B-2 Ⓒ	R2135	D-7 Ⓕ	R3212	A-3 Ⓕ	R4504	B-4 Ⓕ
C3026	C-2 Ⓕ	C3230	A-2 Ⓕ	C4215	B-5 Ⓒ	R637	D-4 Ⓕ	R2043	A-3 Ⓒ	R2136	D-6 Ⓕ	R3213	C-5 Ⓒ	R4506	B-3 Ⓕ
C3027	D-3 Ⓒ	C3231	A-2 Ⓕ	C4218	A-5 Ⓒ	R638	C-3 Ⓒ	R2044	B-6 Ⓕ	R2137	D-6 Ⓕ	R3214	C-5 Ⓒ	R4507	B-4 Ⓕ
C3028	D-5 Ⓕ	C3232	A-2 Ⓕ	C4219	B-5 Ⓒ	R639	D-4 Ⓕ	R2045	B-6 Ⓕ	R2138	B-5 Ⓕ	R3215	A-4 Ⓕ	R4701	A-7 Ⓒ
C3030	D-5 Ⓕ	C3233	A-3 Ⓕ	C4501	C-4 Ⓕ	R640	C-5 Ⓒ	R2046	A-2 Ⓒ	R2139	B-2 Ⓒ	R3217	A-3 Ⓕ	R4702	A-7 Ⓒ
C3035	D-5 Ⓕ	C3234	A-2 Ⓕ	C4502	C-3 Ⓕ	R642	C-4 Ⓒ	R2047	B-4 Ⓒ	R2140	B-2 Ⓒ	R3218	A-3 Ⓕ	R4704	A-7 Ⓒ
C3036	D-4 Ⓕ	C3235	A-3 Ⓕ	C4503	C-3 Ⓕ	R644	C-4 Ⓒ	R2048	B-5 Ⓕ	R2141	B-5 Ⓕ	R3219	B-3 Ⓕ	R4705	A-7 Ⓒ
C3037	D-4 Ⓒ	C3236	A-3 Ⓕ	C4504	C-3 Ⓕ	R645	D-4 Ⓕ	R2049	A-5 Ⓕ	R2142	B-6 Ⓕ	R3220	A-2 Ⓕ	R4707	A-1 Ⓕ
C3038	D-5 Ⓕ	C3237	A-3 Ⓕ	C4505	C-3 Ⓕ	R646	D-4 Ⓕ	R2050	B-4 Ⓒ	R2143	B-1 Ⓒ	R3221	A-2 Ⓕ	R4708	A-1 Ⓕ
C3039	D-4 Ⓕ	C3238	A-5 Ⓒ	C4506	C-3 Ⓕ	R647	D-4 Ⓕ	R2052	A-5 Ⓕ	R2199	B-4 Ⓕ	R3222	C-6 Ⓒ	R4709	A-1 Ⓕ
C3040	D-3 Ⓒ	C3239	B-3 Ⓕ	C4507	C-3 Ⓕ	R648	C-4 Ⓕ	R2053	A-5 Ⓕ	R3001	D-3 Ⓒ	R3223	C-5 Ⓒ	R4710	A-1 Ⓕ
C3041	D-3 Ⓒ	C3240	B-3 Ⓕ	C4508	C-3 Ⓕ	R649	C-4 Ⓕ	R2054	B-2 Ⓒ	R3002	D-2 Ⓒ	R3224	B-3 Ⓕ	R4711	A-1 Ⓕ
C3042	D-5 Ⓕ	C3241	B-3 Ⓕ	C4509	B-4 Ⓕ	R650	C-4 Ⓕ	R2055	B-3 Ⓒ	R3003	B-4 Ⓒ	R3225	A-5 Ⓒ	R4712	A-1 Ⓕ
C3043	C-5 Ⓕ	C3242	B-3 Ⓕ	C4510	B-4 Ⓕ	R651	C-3 Ⓕ	R2056	B-4 Ⓒ	R3004	D-5 Ⓕ	R3226	B-3 Ⓕ	R4798	A-1 Ⓕ
C3044	C-5 Ⓕ	C3243	C-3 Ⓕ	C4511	B-3 Ⓕ	R652	C-3 Ⓕ	R2057	B-2 Ⓒ	R3005	B-1 Ⓕ	R3227	A-2 Ⓕ	R4799	A-2 Ⓕ
C3045	C-3 Ⓒ	C3244	B-3 Ⓕ	C4512	C-3 Ⓕ	R653	C-3 Ⓕ	R2058	A-2 Ⓒ	R3006	D-4 Ⓕ	R3228	C-6 Ⓒ	R6503	C-7 Ⓒ
C3046	C-5 Ⓕ	C3245	A-2 Ⓕ	C4513	B-5 Ⓒ	R656	D-3 Ⓕ	R2059	A-5 Ⓕ	R3008	D-5 Ⓕ	R3229	B-7 Ⓒ	R6504	A-2 Ⓒ
C3047	C-5 Ⓕ	C3246	B-2 Ⓕ	C4514	B-4 Ⓒ	R657	C-4 Ⓒ	R2060	A-2 Ⓒ	R3009	D-5 Ⓕ	R3230	B-2 Ⓕ	R6505	B-6 Ⓕ
C3048	C-3 Ⓒ	C3247	A-3 Ⓕ	C4515	B-4 Ⓕ	R658	D-3 Ⓕ	R2061	A-3 Ⓒ	R3010	D-5 Ⓕ	R3231	A-5 Ⓒ	R6506	A-6 Ⓕ
C3050	C-3 Ⓒ	C3248	A-3 Ⓕ	C4701	A-1 Ⓕ	R659	C-2 Ⓕ	R2062	A-2 Ⓒ	R3011	D-5 Ⓕ	R3232	A-3 Ⓕ	R6510	A-5 Ⓕ
C3051	C-3 Ⓒ	C3249	B-3 Ⓕ	C4702	A-1 Ⓕ	R661	D-3 Ⓕ	R2063	A-3 Ⓒ	R3012	D-5 Ⓕ	R3233	B-3 Ⓕ	R6515	A-6 Ⓕ
C3053	C-3 Ⓒ	C3250	B-5 Ⓕ	C4704	A-7 Ⓒ	R663	D-3 Ⓕ	R2064	A-3 Ⓒ	R3013	D-5 Ⓕ	R3234	A-2 Ⓕ	**Resistor Array**	
C3054	C-3 Ⓒ	C3251	B-3 Ⓕ	C4705	A-2 Ⓕ	R664	D-2 Ⓕ	R2065	A-3 Ⓒ	R3014	C-3 Ⓒ	R3235	A-4 Ⓕ		
C3055	C-3 Ⓒ	C3252	B-3 Ⓕ	C4706	A-2 Ⓕ	R665	D-2 Ⓕ	R2066	A-5 Ⓕ	R3016	D-3 Ⓒ	R3236	A-4 Ⓕ	RA2001	B-4 Ⓒ
C3056	D-5 Ⓕ	C3253	B-3 Ⓕ	C4798	A-2 Ⓕ	R666	D-2 Ⓕ	R2067	A-5 Ⓕ	R3017	B-3 Ⓒ	R3237	A-5 Ⓒ	RA2002	B-5 Ⓕ
C3057	D-5 Ⓕ	C3254	B-6 Ⓒ	C4799	A-2 Ⓕ	R667	D-2 Ⓕ	R2068	B-4 Ⓒ	R3018	D-7 Ⓕ	R3238	B-2 Ⓕ	RA2003	B-4 Ⓒ
C3058	D-3 Ⓒ	C3255	C-5 Ⓒ	C6501	D-6 Ⓕ	R673	C-3 Ⓕ	R2069	B-2 Ⓒ	R3019	C-2 Ⓕ	R3239	B-2 Ⓕ	RA2005	B-4 Ⓒ
C3060	D-3 Ⓒ	C3256	B-5 Ⓒ	C6502	C-7 Ⓒ	R674	C-3 Ⓕ	R2070	B-6 Ⓕ	R3020	C-3 Ⓒ	R3240	B-2 Ⓕ	RA2006	A-4 Ⓒ
C3061	D-3 Ⓒ	C3257	B-3 Ⓕ	C6503	C-6 Ⓒ	R675	C-3 Ⓕ	R2072	C-4 Ⓒ	R3022	D-4 Ⓕ	R3241	A-2 Ⓕ	RA2007	B-4 Ⓒ
C3065	B-2 Ⓒ	C3258	B-6 Ⓒ	C6504	A-1 Ⓒ	R680	D-3 Ⓕ	R2073	B-4 Ⓒ	R3023	D-5 Ⓕ	R3242	A-3 Ⓕ	RA2008	B-4 Ⓒ
C3066	C-3 Ⓒ	C3259	A-3 Ⓕ	C6507	A-2 Ⓒ	R681	C-3 Ⓕ	R2074	B-4 Ⓒ	R3024	D-4 Ⓕ	R3243	A-4 Ⓕ	RA2011	A-3 Ⓒ
C3067	B-2 Ⓒ	C3261	A-5 Ⓒ	**Resistor**		R682	D-3 Ⓕ	R2076	A-5 Ⓕ	R3027	C-5 Ⓕ	R3244	B-3 Ⓕ	RA2012	A-4 Ⓒ
C3071	B-3 Ⓒ	C3262	B-5 Ⓒ			R683	C-3 Ⓕ	R2077	A-5 Ⓕ	R3028	C-5 Ⓕ	R3245	B-3 Ⓕ	RA2013	A-6 Ⓕ
C3072	B-3 Ⓒ	C3264	A-4 Ⓕ	R507	C-2 Ⓕ	R685	C-3 Ⓕ	R2078	B-4 Ⓒ	R3030	C-5 Ⓕ	R3247	A-3 Ⓕ	RA2014	A-2 Ⓒ
C3073	C-4 Ⓒ	C3265	A-3 Ⓕ	R508	C-2 Ⓕ	R690	C-3 Ⓕ	R2079	B-4 Ⓒ	R3031	C-5 Ⓕ	R3248	B-5 Ⓒ	RA2016	B-5 Ⓕ
C3074	C-4 Ⓕ	C3802	B-6 Ⓕ	R509	C-2 Ⓕ	R691	C-3 Ⓕ	R2080	A-4 Ⓒ	R3032	C-5 Ⓕ	R3249	A-3 Ⓕ	RA2018	A-6 Ⓕ
C3075	C-5 Ⓕ	C3803	B-6 Ⓕ	R510	D-4 Ⓕ	R692	C-5 Ⓒ	R2081	B-4 Ⓕ	R3033	C-5 Ⓕ	R3251	A-3 Ⓕ	RA2023	A-4 Ⓒ
C3076	B-5 Ⓕ	C3804	B-5 Ⓕ	R511	D-2 Ⓕ	R693	C-3 Ⓕ	R2082	B-4 Ⓕ	R3034	C-3 Ⓒ	R3252	A-3 Ⓕ	RA2024	A-5 Ⓕ
C3077	C-5 Ⓕ	C3806	B-7 Ⓕ	R512	D-2 Ⓕ	R694	C-2 Ⓕ	R2083	B-5 Ⓕ	R3035	C-5 Ⓕ	R3254	B-3 Ⓕ	RA3803	B-7 Ⓕ
C3078	C-4 Ⓕ	C3807	C-7 Ⓕ	R513	D-4 Ⓕ	R695	C-2 Ⓕ	R2085	A-2 Ⓒ	R3036	C-2 Ⓕ	R3255	B-3 Ⓕ	RA3804	C-6 Ⓕ
C3079	C-4 Ⓕ	C3808	C-7 Ⓕ	R521	C-1 Ⓕ	R696	C-2 Ⓕ	R2087	B-4 Ⓒ	R3037	D-4 Ⓕ	R3801	B-6 Ⓕ	RA3805	C-6 Ⓕ
C3080	C-2 Ⓕ	C3809	C-7 Ⓕ	R522	C-1 Ⓕ	R697	C-3 Ⓕ	R2088	A-5 Ⓕ	R3038	D-5 Ⓕ	R3803	B-7 Ⓕ	RA3806	B-5 Ⓕ
C3081	C-2 Ⓕ	C3813	C-6 Ⓕ	R523	B-1 Ⓕ	R698	C-3 Ⓕ	R2089	A-3 Ⓒ	R3039	D-4 Ⓕ	R3804	C-7 Ⓕ	RA3807	B-6 Ⓕ
C3083	C-2 Ⓕ	C3814	C-6 Ⓕ	R524	B-1 Ⓕ	R699	C-3 Ⓕ	R2090	A-2 Ⓒ	R3041	D-3 Ⓒ	R3805	C-7 Ⓕ	RA3808	B-6 Ⓕ
C3084	B-2 Ⓕ	C3816	C-6 Ⓕ	R525	B-1 Ⓕ	R2002	B-4 Ⓒ	R2091	B-3 Ⓒ	R3042	D-3 Ⓒ	R3806	C-7 Ⓕ	RA3809	B-6 Ⓕ
C3086	B-2 Ⓕ	C3817	C-6 Ⓕ	R526	A-1 Ⓕ	R2003	B-4 Ⓕ	R2092	A-2 Ⓒ	R3044	D-3 Ⓒ	R3807	C-7 Ⓕ	RA4001	B-2 Ⓕ
C3088	B-2 Ⓕ	C3818	C-6 Ⓕ	R527	C-1 Ⓕ	R2004	B-4 Ⓒ	R2093	A-4 Ⓒ	R3046	D-5 Ⓕ	R3809	C-6 Ⓕ		
C3089	C-2 Ⓕ	C3820	C-5 Ⓕ	R528	C-1 Ⓕ	R2005	A-4 Ⓒ	R2095	A-4 Ⓒ	R3048	C-5 Ⓕ	R3811	C-7 Ⓕ		
C3090	B-2 Ⓕ	C3822	B-5 Ⓕ	R529	C-7 Ⓒ	R2006	A-3 Ⓒ	R2096	B-4 Ⓕ	R3049	C-5 Ⓕ	R3812	C-7 Ⓕ		
C3091	B-2 Ⓕ	C3824	C-6 Ⓕ	R530	C-7 Ⓒ	R2007	A-3 Ⓒ	R2097	B-4 Ⓕ	R3050	C-5 Ⓕ	R3813	C-7 Ⓕ		
C3092	B-2 Ⓕ	C3825	C-7 Ⓕ	R531	D-1 Ⓕ	R2008	A-3 Ⓒ	R2098	B-4 Ⓕ	R3051	C-5 Ⓕ	R3814	C-7 Ⓕ		
C3094	B-2 Ⓒ	C3826	B-7 Ⓕ	R532	D-1 Ⓕ	R2009	A-4 Ⓒ	R2099	B-4 Ⓒ	R3052	C-5 Ⓕ	R3815	C-7 Ⓕ		
C3096	C-2 Ⓒ	C3827	C-5 Ⓕ	R600	C-4 Ⓕ	R2011	A-5 Ⓕ	R2100	A-4 Ⓒ	R3053	C-4 Ⓕ	R3816	C-7 Ⓕ		
C3201	C-6 Ⓒ	C3901	A-2 Ⓕ	R601	C-2 Ⓕ	R2012	B-4 Ⓒ	R2101	A-4 Ⓒ	R3054	C-4 Ⓕ	R3834	B-5 Ⓕ		
C3202	C-6 Ⓒ	C3902	A-2 Ⓕ	R602	C-6 Ⓒ	R2013	B-3 Ⓒ	R2102	A-2 Ⓒ	R3055	D-6 Ⓕ	R3841	B-6 Ⓕ		

ADDRESS INFORMATION Ⓒ... COMPONENT SIDE Ⓕ... FOIL SIDE

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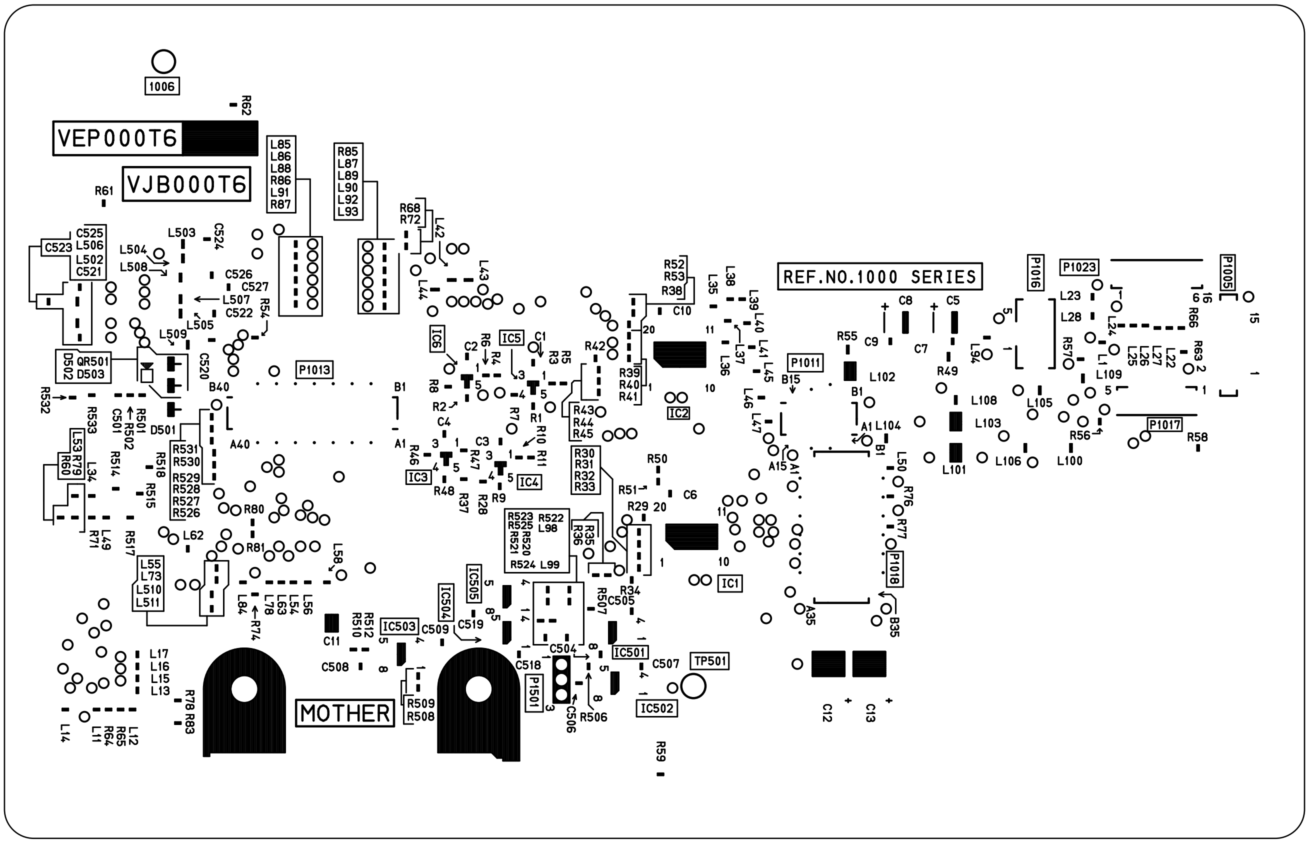
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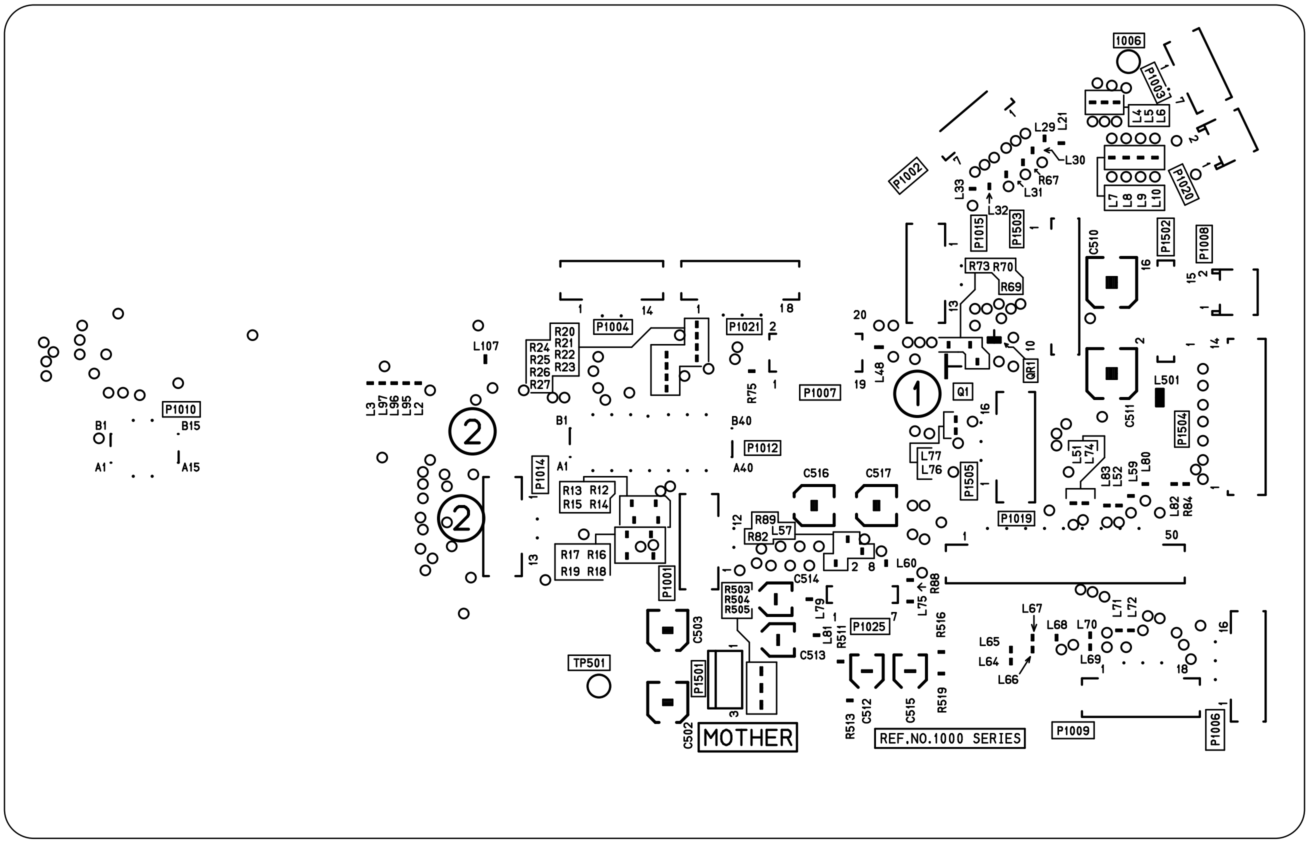
(FOIL SIDE)

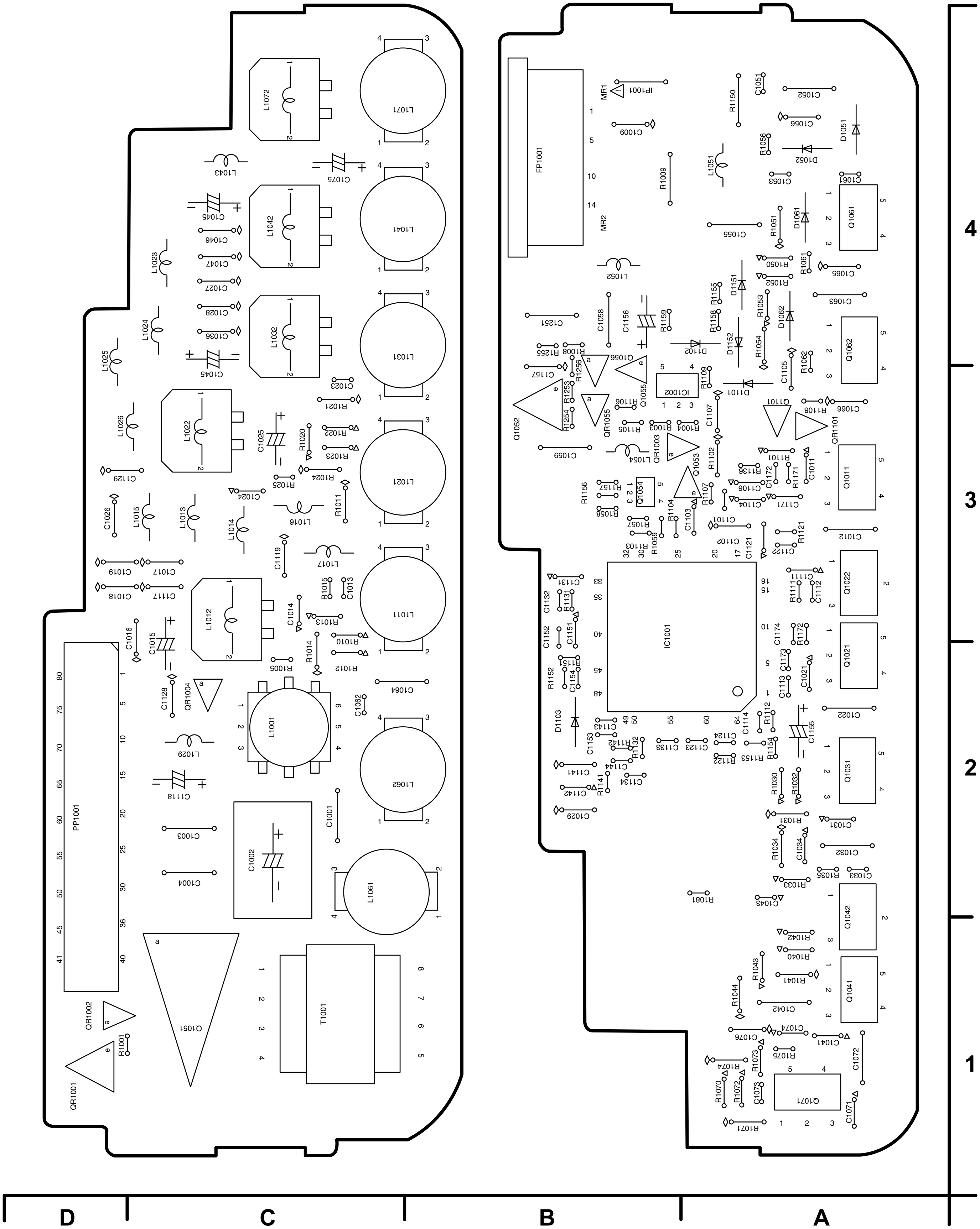
MOTHER C.B.A (VEP000T6A)



1006
P1003
L4 L5 L6
L29 L21
L30
R67
L31
L33
L32
P1002
L7 L8 L9 L10
P1020
P1015
P1503
C510
P1502
P1008
R73 R70
R69
QR1
Q1
L501
C511
P1504
P1004
P1021
R20 R21 R22 R23
R24 R25 R26 R27
L107
R75
P1007
L48
①
②
P1010
B1 B15
A1 A15
L3 L97 L96 L95 L2
B40
A40
P1012
P1014
R13 R12
R15 R14
R17 R16
R19 R18
P1001
L77
L76
P1505
L51 L74
L83 L52 L59 L80
L82 R84
P1019
C516
C517
R89
R82
L57
L60
R88
L75
R503 R504 R505
C514
L79
L81
R511
P1025
R516
C513
C503
C502
P1501
TP501
MOTHER
R513
C512
C515
R519
REF.NO.1000 SERIES
L67
L68 L70 L71 L72
L65
L64
L66
L69
P1009
P1006

(COMPONENT SIDE)

POWER C.B.A (VEP01801C)

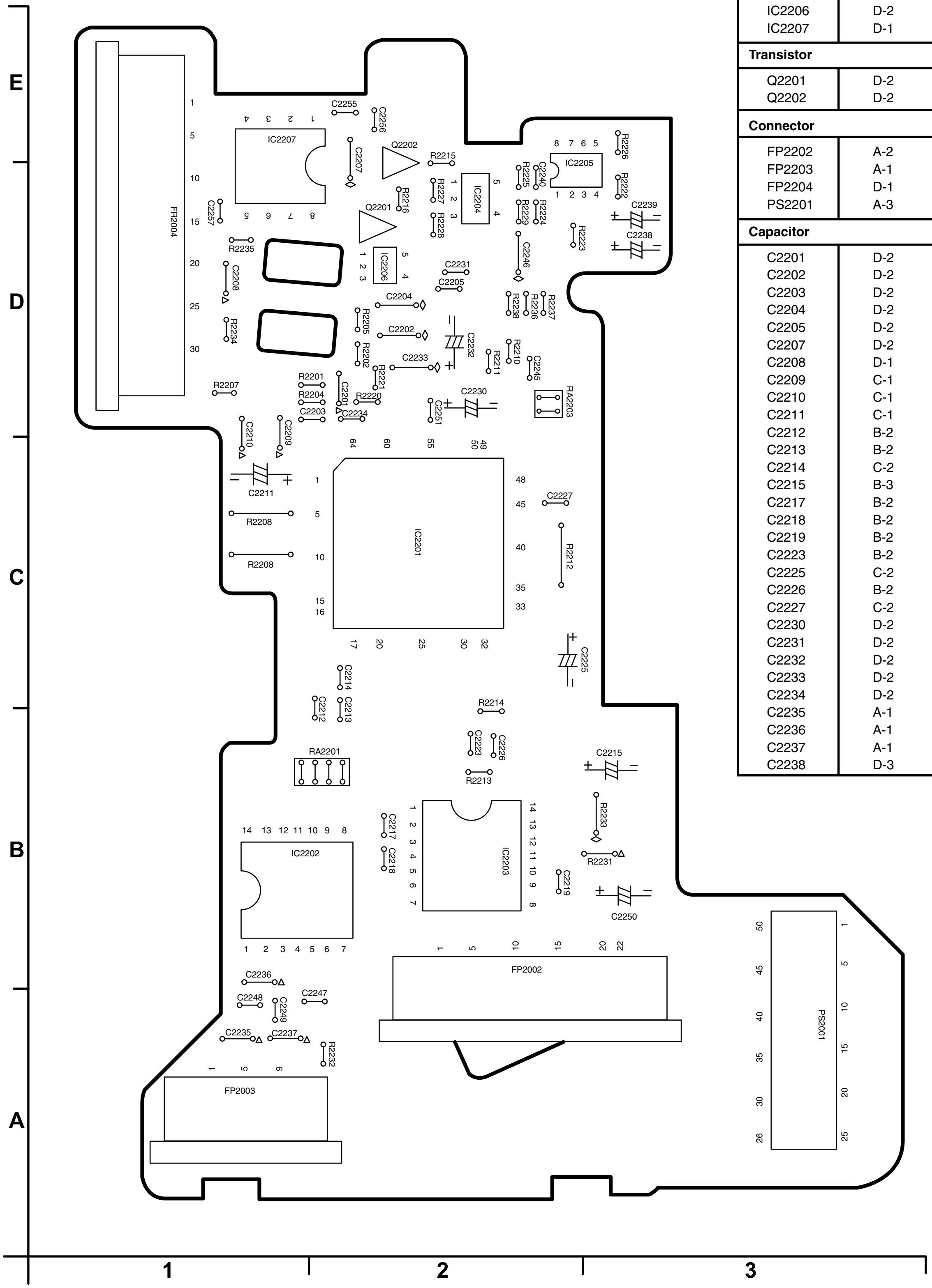


4
3
2
1
D
C
B
A
L1071
L1072
L1041
L1042
L1031
L1032
L1021
L1022
L1011
L1012
L1001
L1062
L1061
T1001
C1002
PP1001
Q1051
QR1001
QR1002
QR1004
FP1001
MR1
MR2
IC1001
IC1002
Q1052
Q1053
Q1054
Q1055
Q1056
Q1061
Q1062
Q1011
Q1022
Q1021
Q1031
Q1042
Q1041
Q1071
QR1101

(COMPONENT SIDE)

(FOIL SIDE)

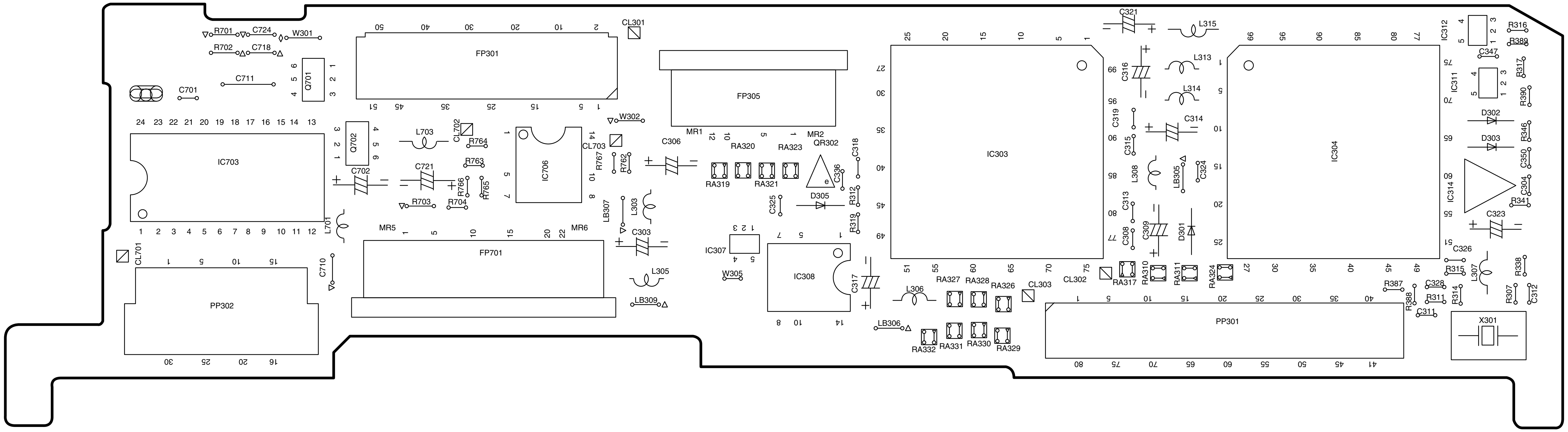
DRIVE C.B.A (VEP02561A)

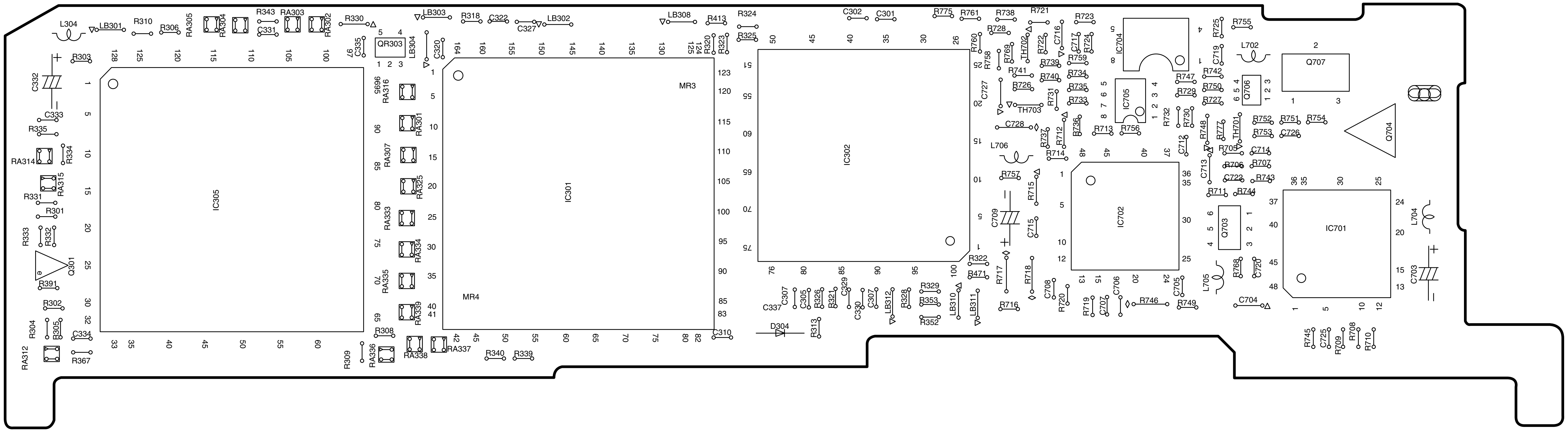


E
D
C
B
A
1
2
3
FR2004
IC2207
C2255
C2256
C2207
Q2202
R2215
Q2201
R2216
R2227
R2228
IC2204
IC2205
R2225
C2240
R2229
R2224
R2226
R2222
C2239
C2238
R2223
C2246
C2257
R2235
C2208
R2234
IC2206
C2231
C2205
C2204
R2205
C2202
R2202
C2232
C2233
R2221
R2238
R2236
R2237
R2210
R2211
C2245
R2207
R2201
R2204
C2203
C2201
R2220
C2234
C2230
C2251
RA2203
C2210
C2209
C2211
R2208
IC2201
C2227
R2212
C2225
C2214
C2212
C2213
R2214
C2223
C2226
RA2201
C2215
R2213
R2233
R2231
C2217
C2218
IC2202
IC2203
C2219
C2250
PS2001
FP2002
C2236
C2248
C2249
C2247
C2235
C2237
R2232
FP2003

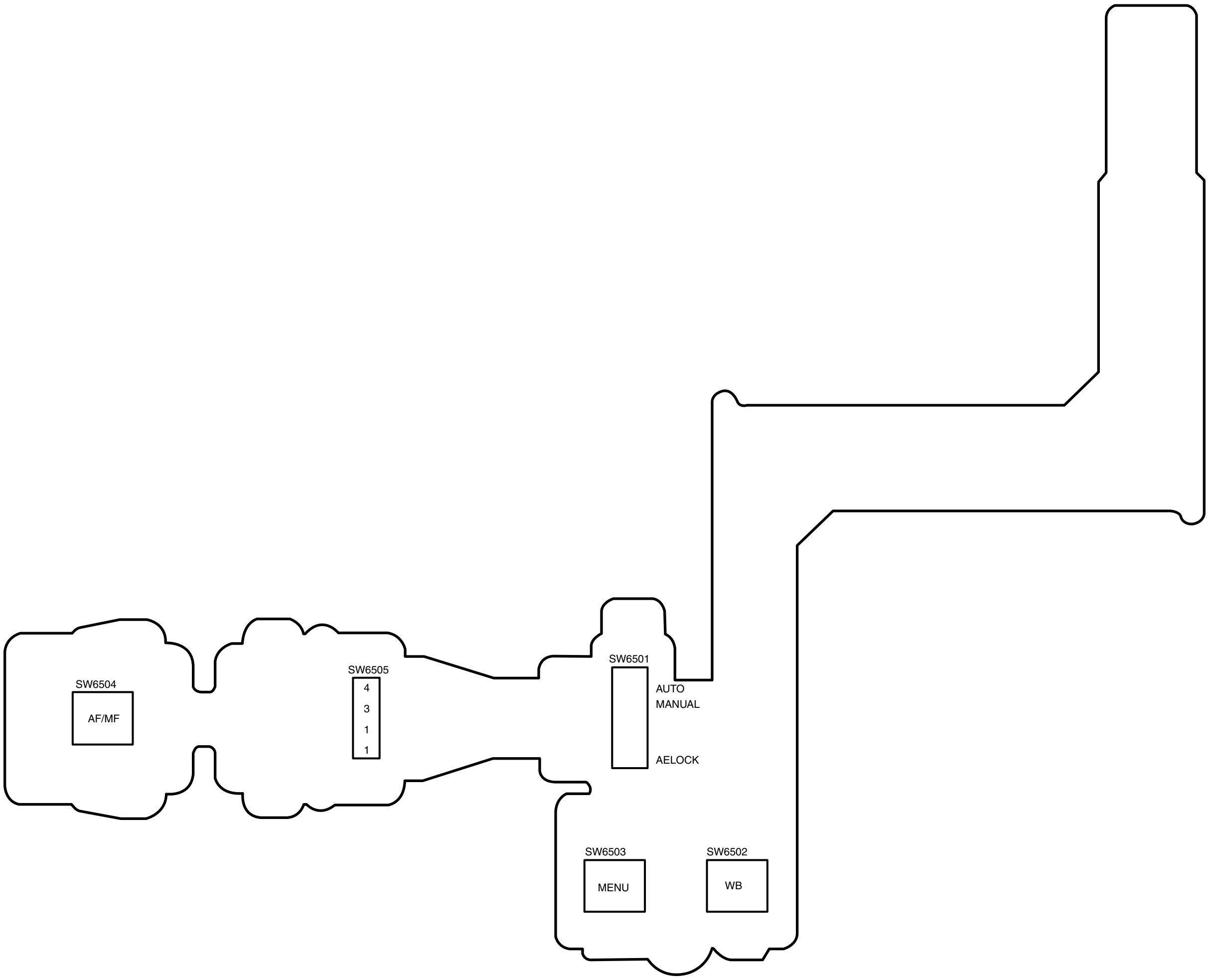
DRIVE C.B.A.	
Integrated Circuit	
IC2201	C-2
IC2202	B-1
IC2203	B-2
IC2204	D-2
IC2205	D-2
IC2206	D-2
IC2207	D-1
Transistor	
Q2201	D-2
Q2202	D-2
Connector	
FP2202	A-2
FP2203	A-1
FP2204	D-1
PS2201	A-3
Capacitor	
C2201	D-2
C2202	D-2
C2203	D-2
C2204	D-2
C2205	D-2
C2207	D-2
C2208	D-1
C2209	C-1
C2210	C-1
C2211	C-1
C2212	B-2
C2213	B-2
C2214	C-2
C2215	B-3
C2217	B-2
C2218	B-2
C2219	B-2
C2223	B-2
C2225	C-2
C2226	B-2
C2227	C-2
C2230	D-2
C2231	D-2
C2232	D-2
C2233	D-2
C2234	D-2
C2235	A-1
C2236	A-1
C2237	A-1
C2238	D-3
C2239	D-3
C2240	D-2
C2245	D-2
C2246	D-2
C2247	A-2
C2248	A-1
C2249	A-1
C2250	B-3
C2251	D-2
C2255	E-2
C2256	E-2
C2257	D-1
Resistor	
R2201	D-2
R2202	D-2
R2204	D-2
R2205	D-2
R2207	D-1
R2208	C-1
R2209	C-1
R2210	D-2
R2211	D-2
R2212	C-2
R2213	B-2
R2214	B-2
R2215	D-2
R2216	D-2
R2220	D-2
R2221	D-2
R2222	D-3
R2223	D-2
R2224	D-2
R2225	D-2
R2226	E-3
R2227	D-2
R2228	D-2
R2229	D-2
R2231	B-3
R2232	A-2
R2233	B-3
R2234	D-1
R2235	D-1
R2236	D-2
R2237	D-2
R2238	D-2
Resistor Array	
RA2201	B-2
RA2203	D-2

CAMERA MAIN C.B.A (VEP23443B)

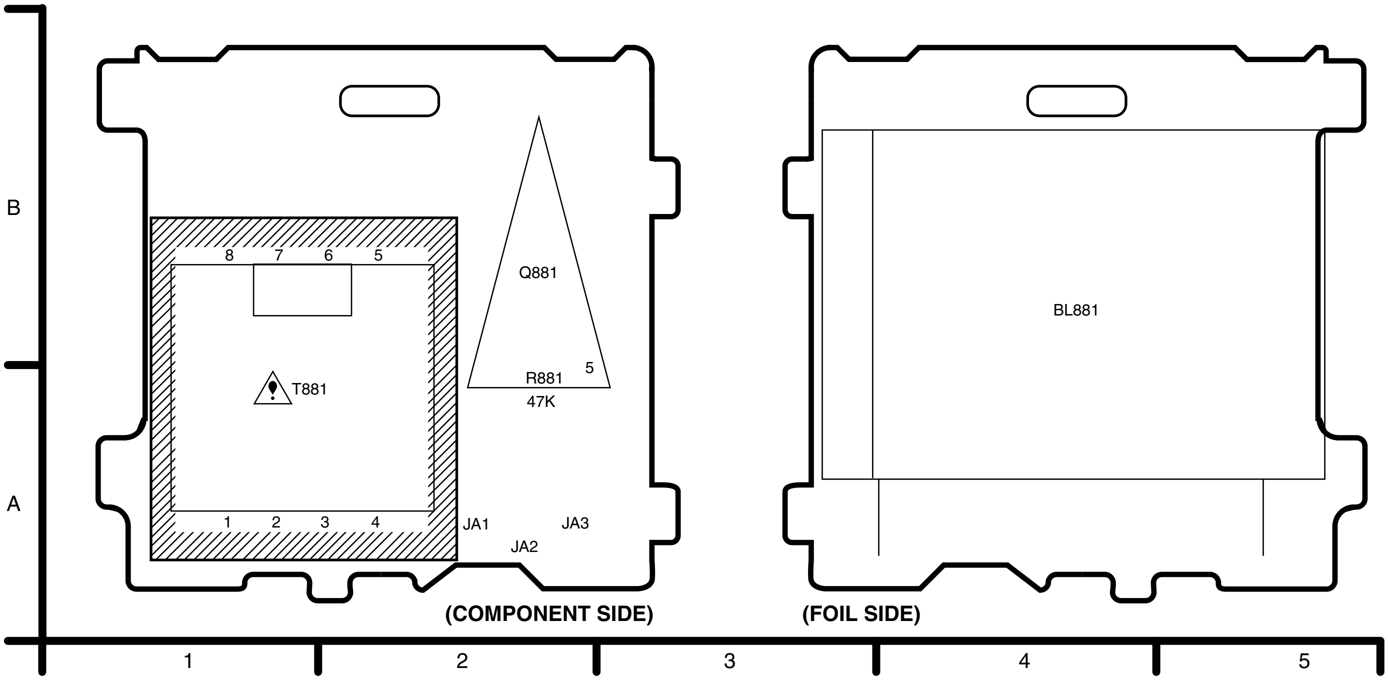

FP301
FP305
FP701
PP302
PP301
IC703
IC706
IC303
IC304
IC307
IC308
IC311
IC312
IC314
Q701
Q702
QR302
X301
CL301
CL302
CL303
CL701
CL702
CL703
MR1
MR2
MR5
MR6
R701
R702
R703
R704
R762
R763
R764
R765
R766
R767
C701
C702
C711
C718
C721
C724
C710
W301
W302
W305
L701
L703
L303
L305
L306
L307
L313
L314
L315
L308
LB305
LB306
LB307
LB309
RA310
RA311
RA317
RA319
RA320
RA321
RA323
RA324
RA326
RA327
RA328
RA329
RA330
RA331
RA332
C303
C306
C308
C309
C311
C312
C313
C314
C315
C316
C317
C318
C319
C321
C323
C324
C325
C326
C328
C336
C347
C350
C304
D301
D302
D303
D305
R307
R311
R312
R314
R315
R316
R317
R319
R338
R341
R346
R387
R388
R389
R390


IC305
IC301
IC302
IC701
IC702
IC704
IC705
Q301
Q703
Q704
Q706
Q707
QR303
MR3
MR4
L304
L702
L704
L705
L706
LB301
LB302
LB303
LB304
LB308
LB310
LB311
LB312
RA301
RA302
RA303
RA304
RA305
RA307
RA312
RA314
RA315
RA316
RA325
RA333
RA334
RA335
RA336
RA337
RA338
RA339
TH701
TH702
TH703
D304
C301
C302
C305
C307
C310
C320
C322
C327
C329
C331
C332
C333
C334
C335
C337
C703
C704
C705
C706
C708
C709
C712
C713
C714
C715
C716
C717
C719
C720
C722
C725
C726
C727
C728
R301
R302
R303
R304
R305
R306
R308
R309
R310
R313
R318
R320
R321
R322
R323
R324
R325
R326
R328
R329
R330
R331
R332
R333
R334
R335
R339
R340
R343
R352
R353
R367
R391
R413
R471
R705
R706
R707
R708
R709
R710
R711
R712
R713
R714
R715
R716
R717
R718
R719
R720
R721
R722
R723
R724
R725
R726
R727
R728
R729
R730
R731
R732
R733
R734
R735
R736
R737
R738
R739
R740
R741
R742
R743
R744
R745
R746
R747
R748
R749
R750
R751
R752
R753
R754
R755
R756
R757
R758
R759
R760
R761
R768
R769
R775
R777

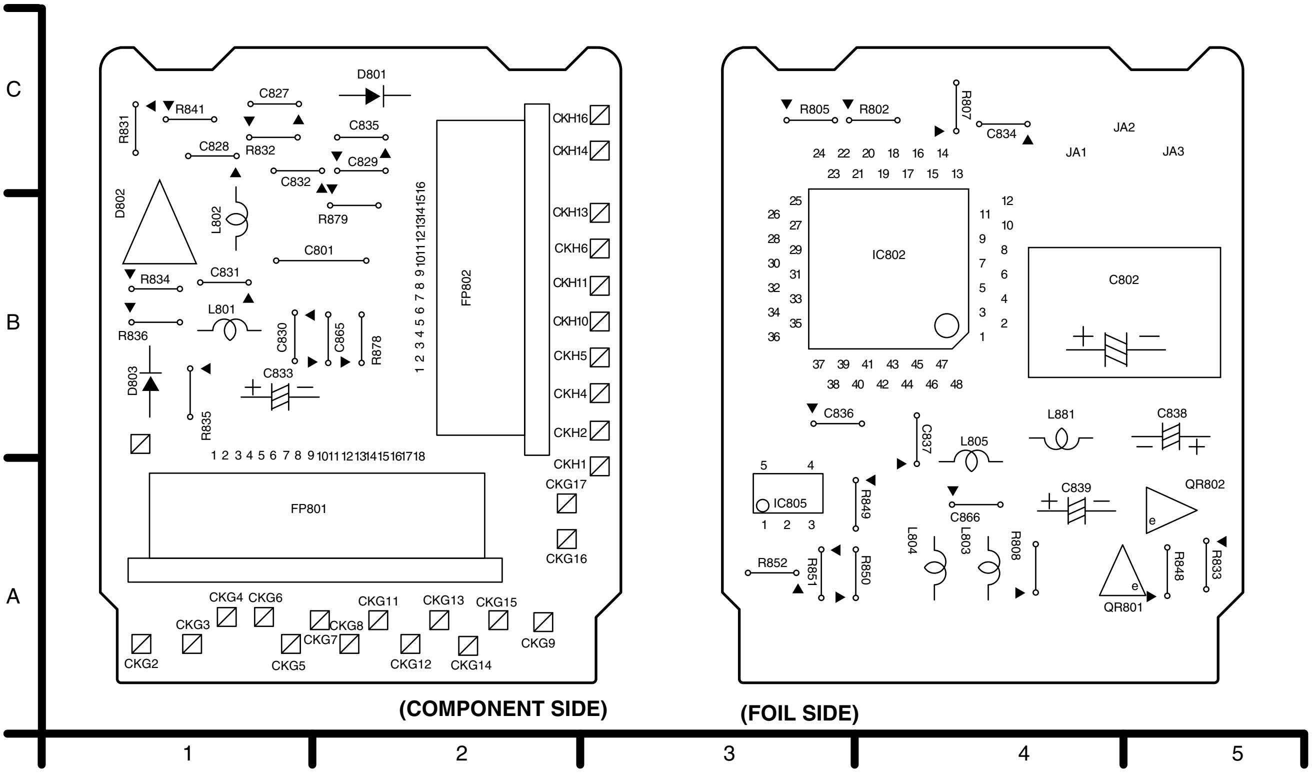
CAMERA OPERATION C.B.A (VEP20737B)


SW6504
AF/MF
SW6505
4
3
1
1
SW6501
AUTO
MANUAL
AELOCK
SW6503
MENU
SW6502
WB

EVF (A) C.B.A (VEP28240D)

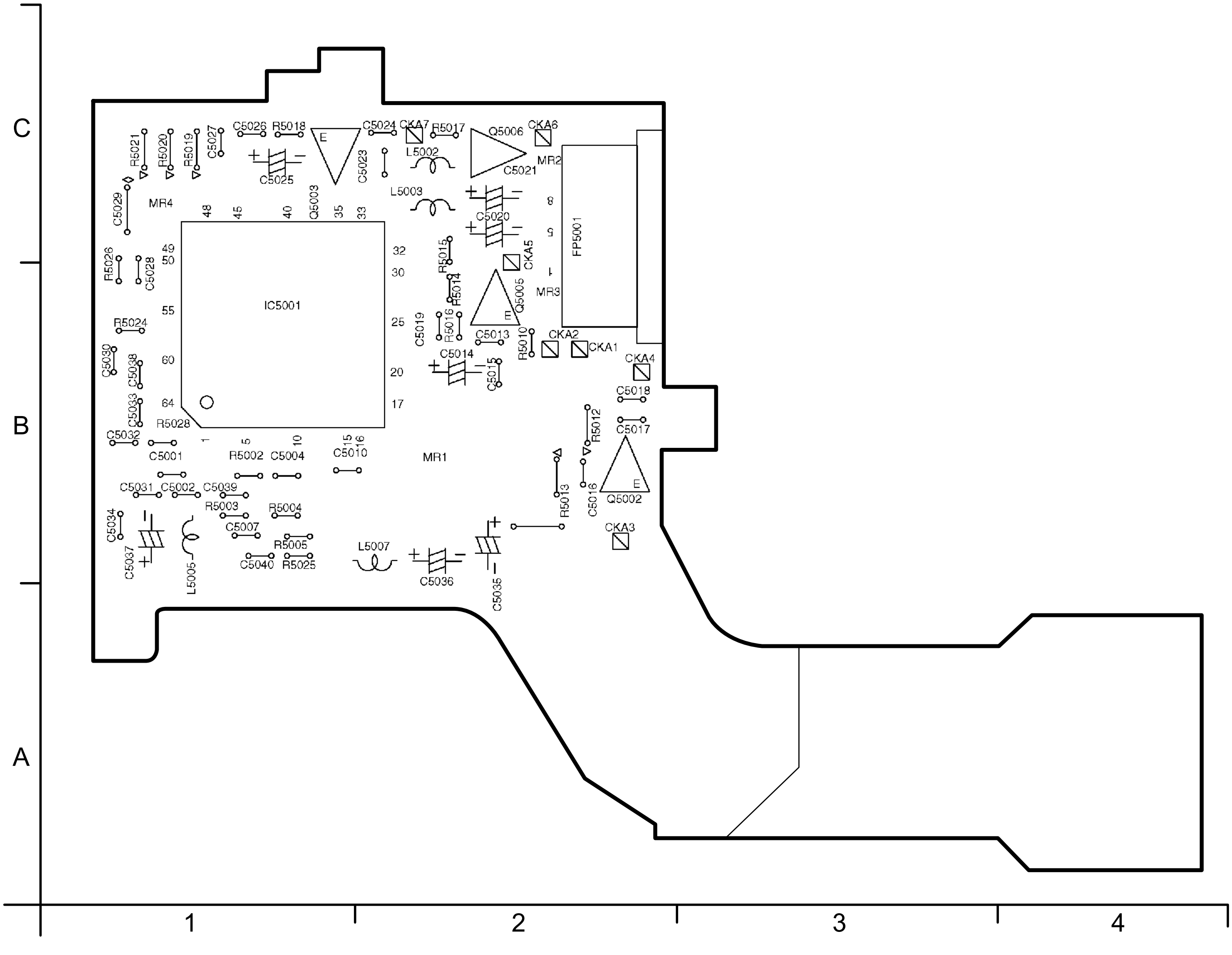

B
A
8
7
6
5
Q881
BL881
T881
R881
5
47K
1
2
3
4
JA1
JA3
JA2
(COMPONENT SIDE)
(FOIL SIDE)
1
2
3
4
5

EVF (B) C.B.A (VEP28244B)


C
B
A
D801
C827
R841
R831
C835
C828
R832
C829
C832
D802
L802
R879
C801
R834
C831
L801
R836
C830
C865
R878
D803
C833
R835
FP802
FP801
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
CKH16
CKH14
CKH13
CKH6
CKH11
CKH10
CKH5
CKH4
CKH2
CKH1
CKG17
CKG16
CKG2
CKG3
CKG4
CKG5
CKG6
CKG7
CKG8
CKG9
CKG11
CKG12
CKG13
CKG14
CKG15
R805
R802
R807
C834
JA2
JA1
JA3
IC802
C802
C836
C837
L805
L881
C838
IC805
R849
C866
C839
QR802
R852
R851
R850
L804
L803
R808
R848
R833
QR801
e
(COMPONENT SIDE)
(FOIL SIDE)
1
2
3
4
5

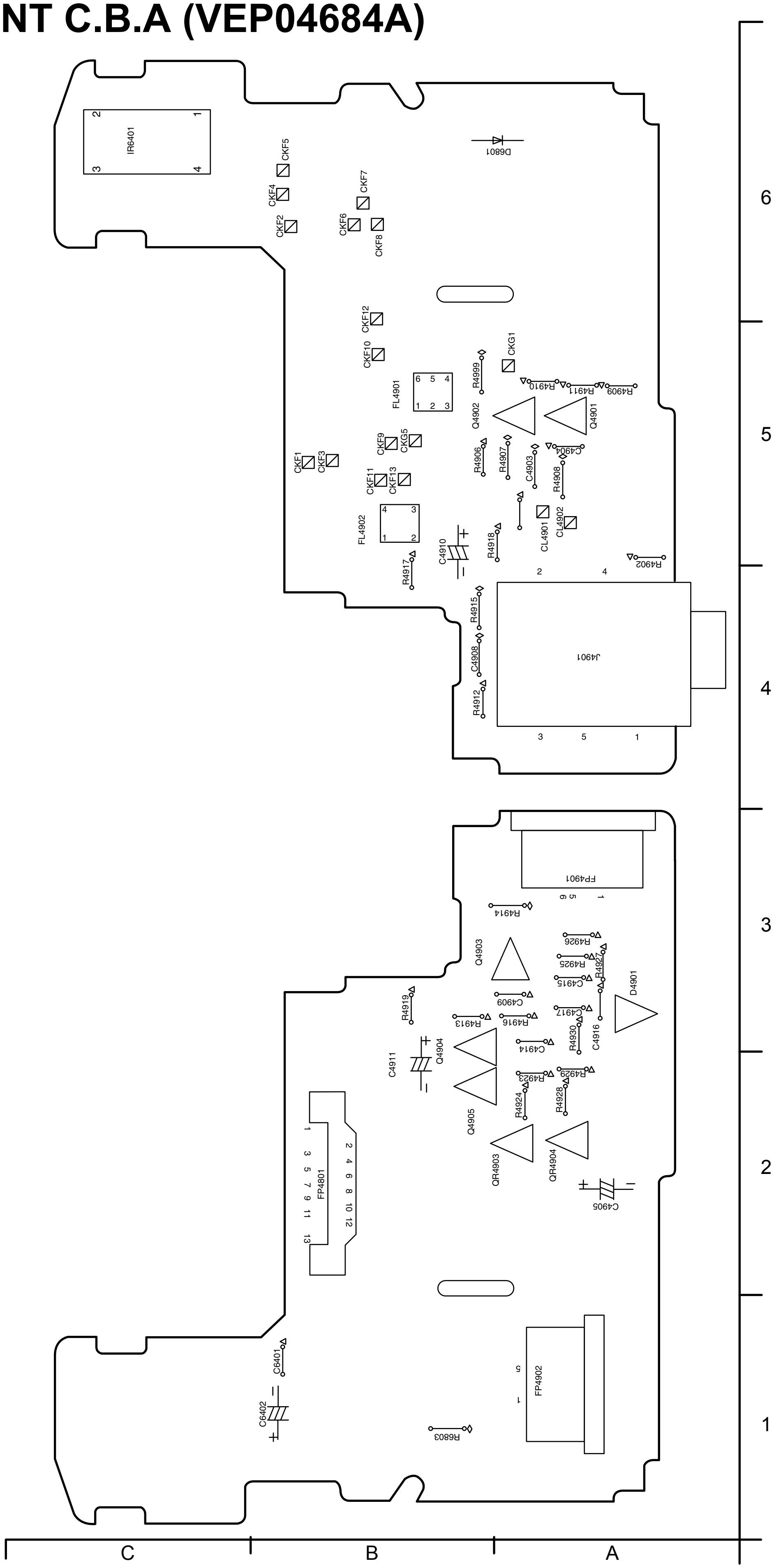
HEAD AMP C.B.A (VEP05352A)

HEAD/REC AMP C.B.A.	
Integrated Circuit	
IC5001	B-1
Transistor	
Q5002	B-2
Q5003	C-1
Q5005	B-2
Q5006	C-2
Connector	
FP5001	C-2
Coil	
L5002	C-2
L5003	C-2
L5005	B-1
L5007	B-2
Capacitor	
C5001	B-1
C5002	B-1
C5004	B-1
C5007	B-1
C5010	B-1
C5013	B-2
C5014	B-2
C5015	B-2
C5016	B-2
C5017	B-2
C5018	B-2
C5019	B-2
C5020	C-2
C5021	C-2
C5023	C-2
C5024	C-2
C5025	C-1
C5026	C-1
C5027	C-1
C5028	C-1
C5029	C-1
C5030	B-1
C5031	B-1
C5032	B-1
C5033	B-1
C5034	B-1
C5035	B-2
C5036	B-2
C5037	B-1
C5038	B-1
C5039	B-1
C5040	B-1
Resistor	
R5002	B-1
R5003	B-1
R5004	B-1
R5005	B-1
R5010	B-2
R5012	B-2
R5013	B-2
R5014	C-2
R5015	C-2
R5016	B-2
R5017	C-2
R5018	C-1
R5019	C-1
R5020	C-1
R5021	C-1
R5024	B-1
R5025	B-1
R5026	C-1
R5028	B-1
R5029	B-2



C
B
A
1
2
3
4
IC5001
FP5001
Q5002
Q5003
Q5005
Q5006
MR1
MR2
MR3
MR4
CKA1
CKA2
CKA3
CKA4
CKA5
CKA6
CKA7
L5002
L5003
L5005
L5007
C5001
C5002
C5004
C5007
C5010
C5013
C5014
C5015
C5016
C5017
C5018
C5019
C5020
C5021
C5023
C5024
C5025
C5026
C5027
C5028
C5029
C5030
C5031
C5032
C5033
C5034
C5035
C5036
C5037
C5038
C5039
C5040
R5002
R5003
R5004
R5005
R5010
R5012
R5013
R5014
R5015
R5016
R5017
R5018
R5019
R5020
R5021
R5024
R5025
R5026
R5028
E
1
5
10
15
16
17
20
25
30
32
33
35
40
45
48
49
50
55
60
64
8
5
4

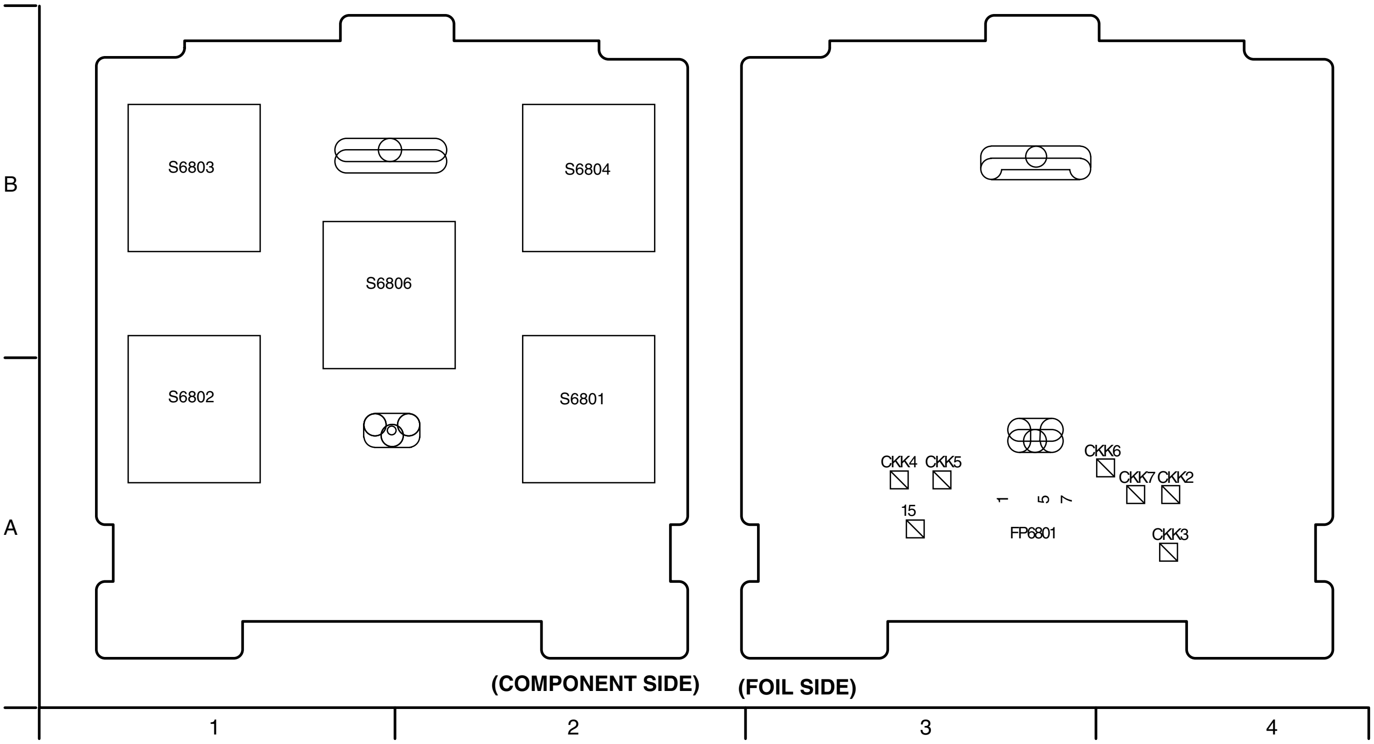
FRONT C.B.A (VEP04684A)


IR6401
D6801
CKF1
CKF2
CKF3
CKF4
CKF5
CKF6
CKF7
CKF8
CKF9
CKF10
CKF11
CKF12
CKF13
CKG1
CKG5
FL4901
FL4902
R4999
R4910
R4911
R4909
Q4902
Q4901
R4906
R4907
C4903
C4904
R4908
CL4901
CL4902
C4910
R4918
R4917
R4902
R4915
C4908
R4912
J4901
FP4901
R4914
R4926
R4925
R4927
C4915
Q4903
D4901
C4909
R4919
R4913
R4916
C4917
C4916
R4930
C4914
C4911
Q4904
Q4905
R4923
R4929
R4924
R4928
QR4903
QR4904
C4905
FP4801
C6401
C6402
R6803
FP4902
C
B
A
1
2
3
4
5
6

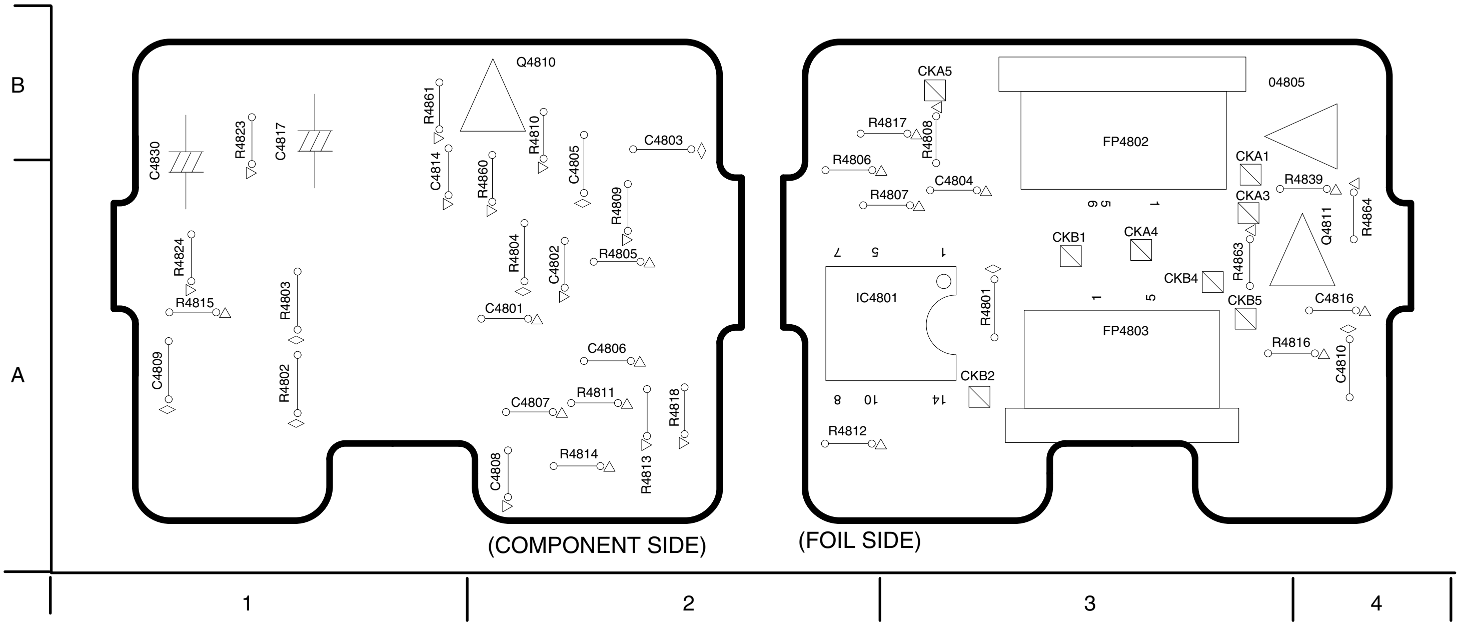
FRONT C.B.A.	
Transistor	
Q4901	A-5
Q4902	B-5
Q4903	B-3
Q4904	B-3
Q4905	B-2
Transistor & Resistor	
QR4903	A-2
QR4904	A-2
Connector	
FP4801	B-2
FP4901	A-3
FP4902	A-1

ADDRESS INFORMATION

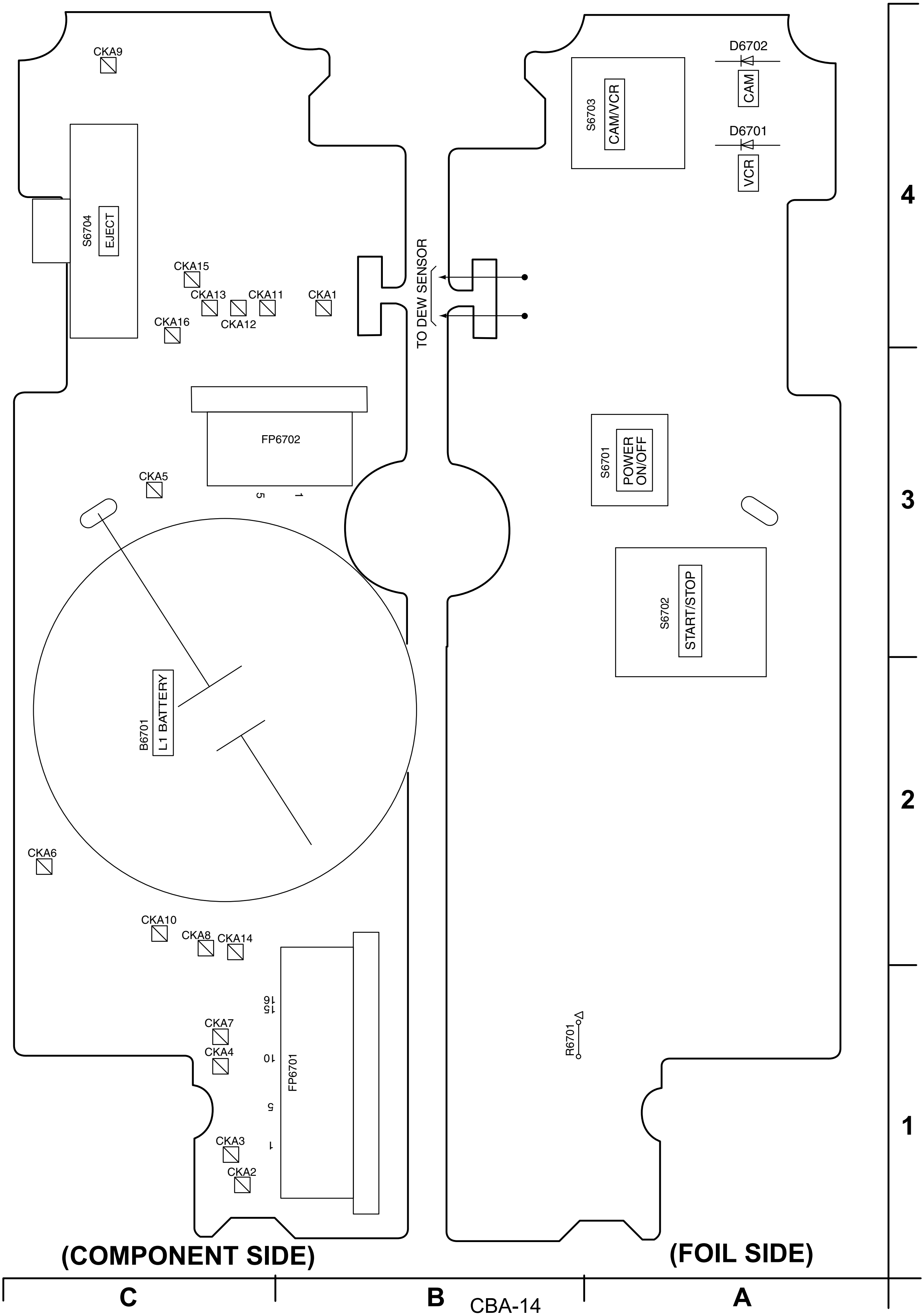
TOP OPERATION C.B.A (VEP06C24A)


B
A
S6803
S6804
S6806
S6802
S6801
CKK4
CKK5
CKK6
CKK7
CKK2
15
1
5
7
FP6801
CKK3
(COMPONENT SIDE)
(FOIL SIDE)
1
2
3
4

MIC C.B.A (VEP04693A)


B
A
Q4810
R4861
C4830
R4823
C4817
R4810
C4814
R4860
C4805
C4803
R4809
R4824
R4804
C4802
R4805
R4815
R4803
C4801
C4809
R4802
C4806
C4807
R4811
R4818
C4808
R4814
R4813
CKA5
04805
R4817
R4808
FP4802
R4806
C4804
CKA1
R4839
R4807
6
5
1
CKA3
Q4811
R4864
CKB1
CKA4
R4863
7
5
1
IC4801
R4801
CKB4
1
5
CKB5
C4816
FP4803
R4816
C4810
CKB2
8
10
14
R4812
(COMPONENT SIDE)
(FOIL SIDE)
1
2
3
4

REAR OPERATION C.B.A (VEP06C37A)

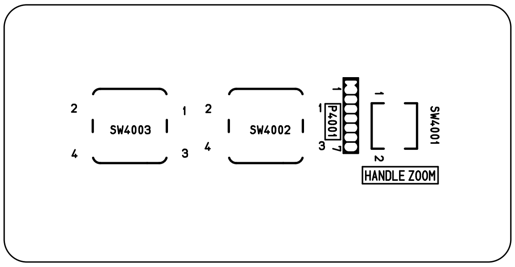


CKA9
S6704
EJECT
CKA15
CKA13
CKA11
CKA1
CKA12
CKA16
TO DEW SENSOR
FP6702
5
1
CKA5
B6701
L1 BATTERY
CKA6
CKA10
CKA8
CKA14
16
15
CKA7
CKA4
10
FP6701
5
1
CKA3
CKA2
S6703
CAM/VCR
D6702
CAM
D6701
VCR
S6701
POWER ON/OFF
S6702
START/STOP
R6701
4
3
2
1
C
B
A

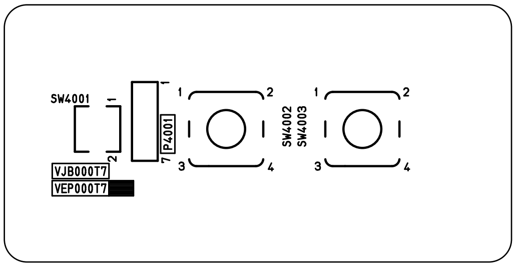
(COMPONENT SIDE)

(FOIL SIDE)

ZOOM C.B.A (VEP000T7A)

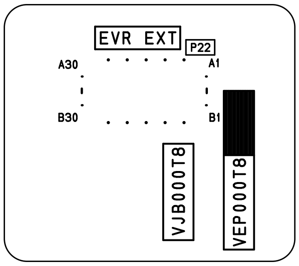

SW4003
SW4002
P4001
SW4001
HANDLE ZOOM
1
2
3
4
7

(FOIL SIDE)

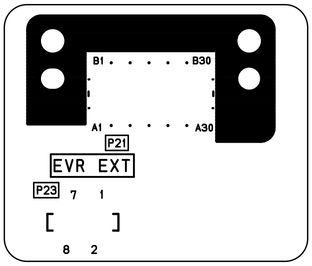

SW4001
P4001
SW4002
SW4003
VJB000T7
VEP000T7
1
2
3
4
7

(COMPONENT SIDE)

EVR EXT C.B.A (VEP000T8A)

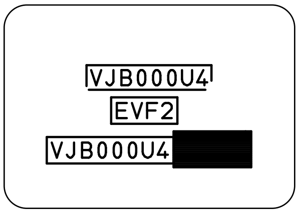

EVR EXT
P22
A30
A1
B30
B1
VJB000T8
VEP000T8

(FOIL SIDE)

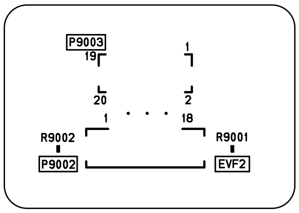

B1
B30
A1
A30
P21
EVR EXT
P23
7
1
8
2

(COMPONENT SIDE)

EVR INT C.B.A (VEP000U4A)

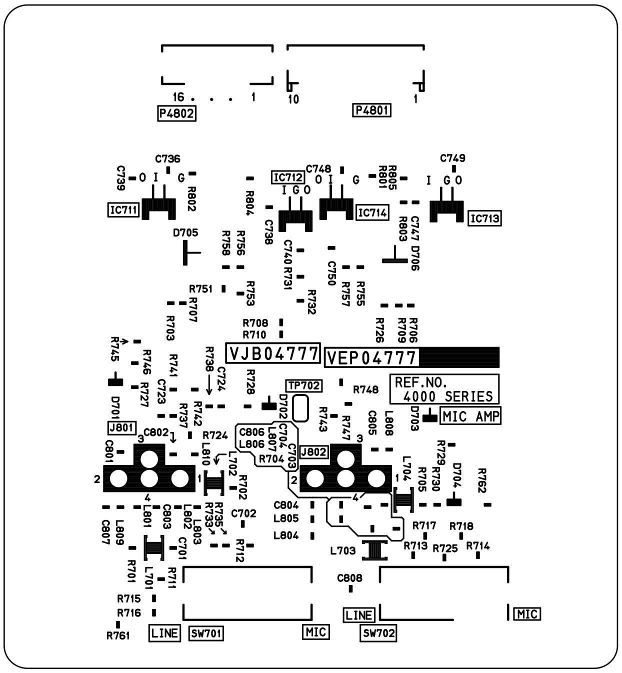

VJB000U4
EVF2
VJB000U4

(FOIL SIDE)


P9003
19
1
20
2
1
18
R9002
R9001
P9002
EVF2

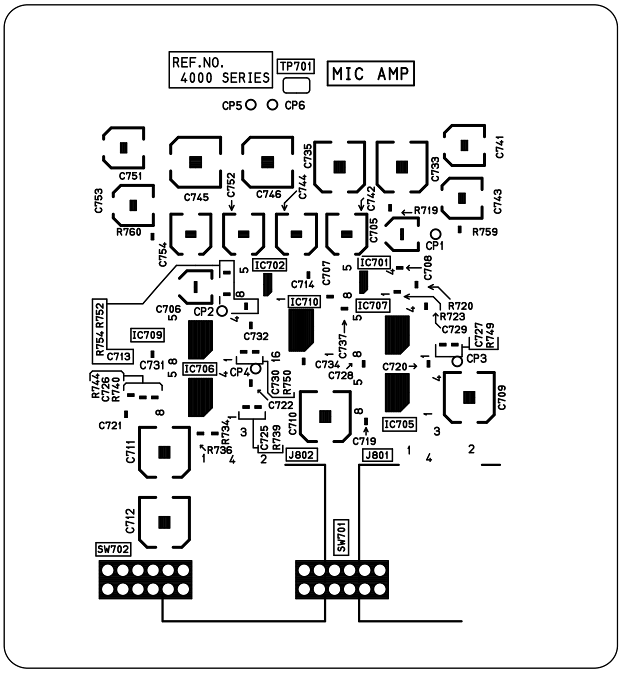
(COMPONENT SIDE)

MIC AMP C.B.A (VEP04777A)



P4802
P4801
IC711
IC712
IC714
IC713
D705
D706
D701
D702
D703
D704
VJB04777
VEP04777
REF.NO.
4000 SERIES
MIC AMP
TP702
J801
J802
L703
C808
LINE
SW701
MIC
LINE
SW702
MIC
R715
R716
R761

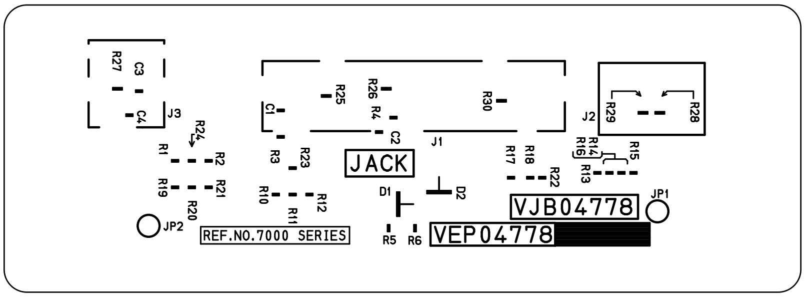
(FOIL SIDE)



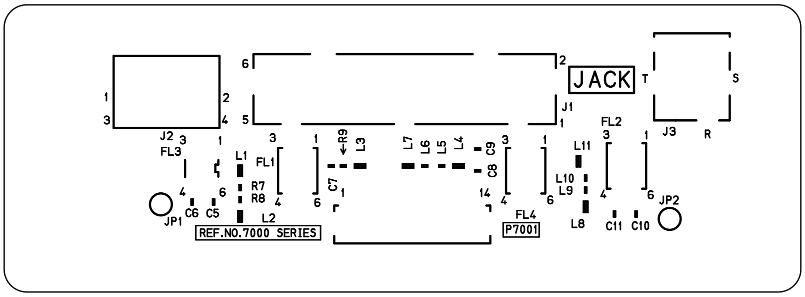
REF.NO.
4000 SERIES
TP701
MIC AMP
CP5
CP6
C751
C745
C746
C735
C733
C741
C753
C743
R760
R719
R759
CP1
IC702
IC701
IC710
IC707
IC709
IC706
IC705
CP2
CP3
CP4
C709
C711
C712
J802
J801
SW702
SW701

(COMPONENT SIDE)

JACK C.B.A (VEP04778A)

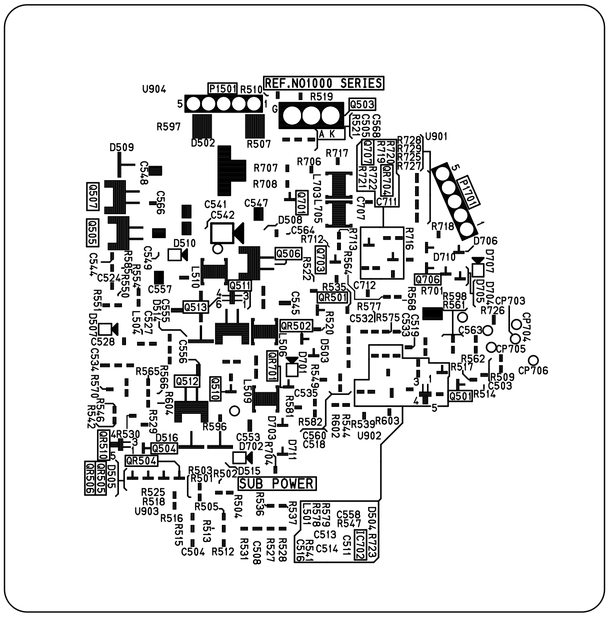

R27
C3
J3
C4
R24
R1
R2
R19
R21
R20
JP2
REF.NO.7000 SERIES
C1
R25
R26
R4
C2
R3
R23
JACK
J1
R10
R12
R11
D1
D2
R5
R6
VEP04778
R30
R17
R18
R22
J2
R29
R28
R16
R14
R15
R13
VJB04778
JP1

(FOIL SIDE)


1
3
2
4
J2
3
FL3
1
4
6
C6
C5
JP1
L1
R7
R8
L2
REF.NO.7000 SERIES
6
5
3
FL1
4
1
6
R9
L3
C7
1
L7
L6
L5
L4
C9
C8
14
FL4
P7001
3
1
4
6
2
1
J1
JACK
T
S
J3
R
FL2
3
1
4
6
L11
L10
L9
L8
C11
C10
JP2

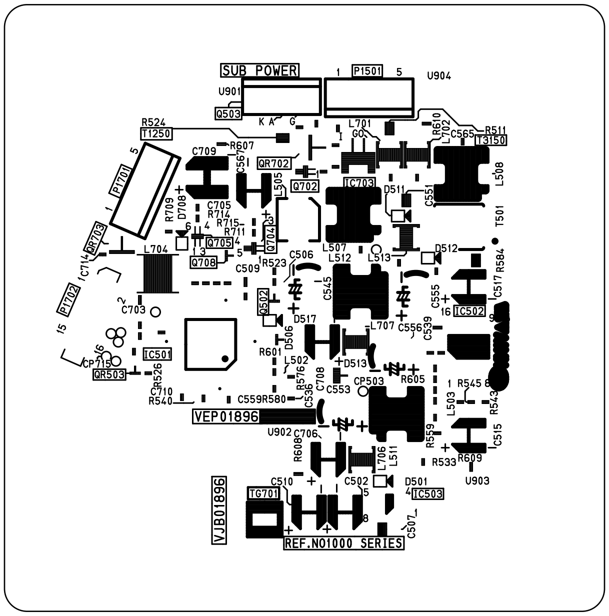
(COMPONENT SIDE)

SUB POWER C.B.A (VEP01896A)



U904
P1501
R510
REF.NO1000 SERIES
R519
Q503
U901
P1701
SUB POWER
U902
U903

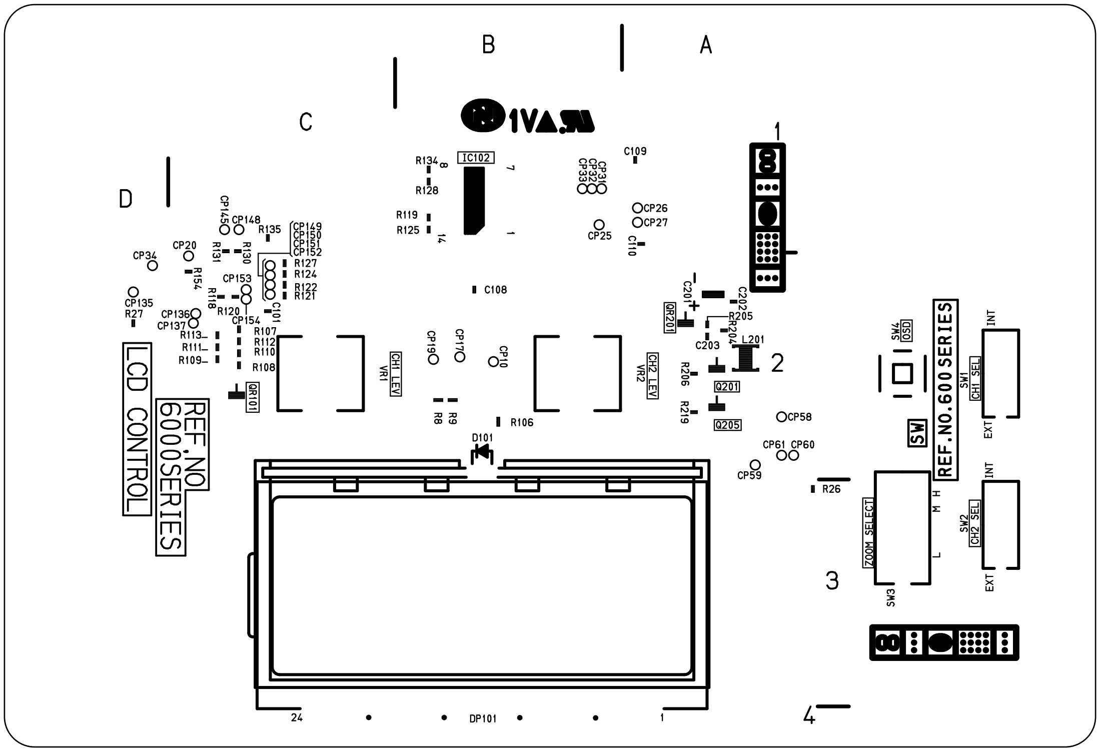
(FOIL SIDE)



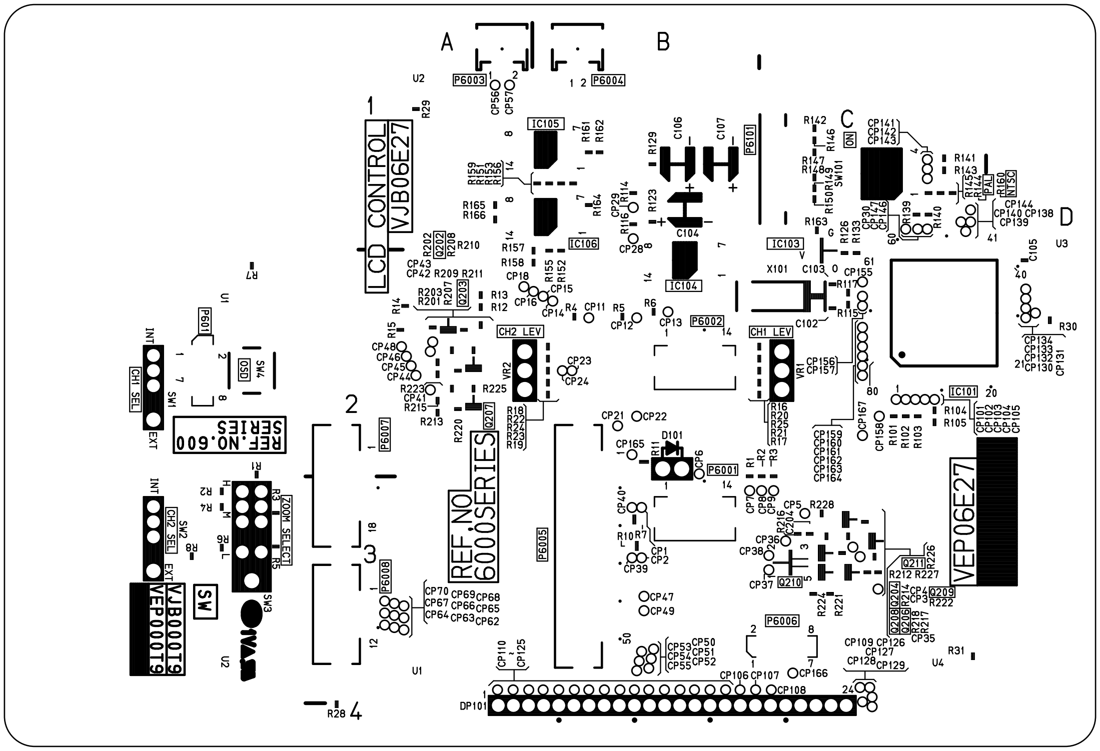
SUB POWER
P1501
U904
U901
Q503
T1250
T3150
P1701
P1702
IC501
IC502
IC503
IC703
VEP01896
VJB01896
TG701
REF.NO1000 SERIES
U902
U903

(COMPONENT SIDE)

SUB POWER C.B.A (VEP06E27A)
SW C.B.A (VEP000T9A)


A
B
C
D
1
2
3
4
IC102
LCD CONTROL
REF.NO 6000SERIES
CH1 LEV
VR1
CH2 LEV
VR2
D101
DP101
ZOOM SELECT
SW3
SW
REF.NO.600 SERIES
SW4
OSD
SW1
CH1 SEL
SW2
CH2 SEL
INT
EXT
Q201
Q205
QR201
QR101
L201
C201
C202
C203

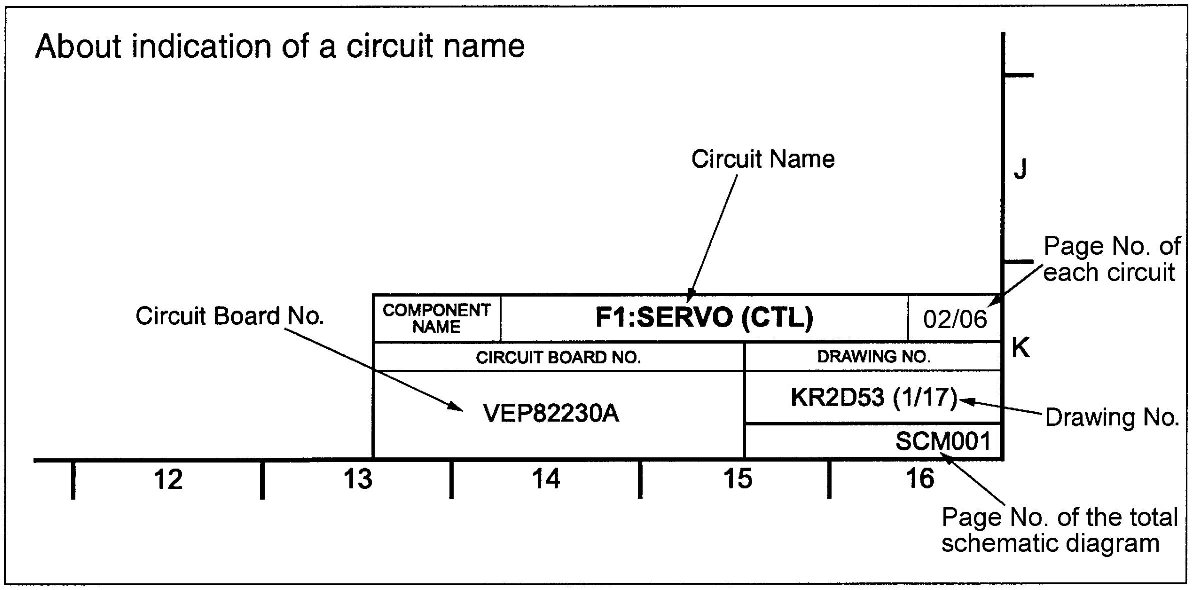
(FOIL SIDE)


A
B
C
D
1
2
3
4
P6003
P6004
IC105
IC106
IC104
IC103
IC101
P6101
X101
LCD CONTROL
VJB06E27
REF.NO 6000SERIES
CH2 LEV
VR2
CH1 LEV
VR1
P6002
P6001
D101
P6005
P6006
P6007
P6008
DP101
VEP06E27
P601
SW4
OSD
SW1
CH1 SEL
REF.NO.600 SERIES
SW2
CH2 SEL
ZOOM SELECT
SW3
SW
VJB000T9
VEP000T9
INT
EXT
U1
U2
U3
U4

(COMPONENT SIDE)

SECTION 7

SCHEMATIC DIAGRAMS


About indication of a circuit name
Circuit Name
Circuit Board No.
Page No. of each circuit
Drawing No.
Page No. of the total schematic diagram
COMPONENT NAME
F1:SERVO (CTL)
02/06
CIRCUIT BOARD NO.
DRAWING NO.
VEP82230A
KR2D53 (1/17)
SCM001
J
K
12
13
14
15
16

NOTE:
BE SURE TO MAKE YOUR ORDERS OF REPLACEMENT PARTS ACCORDING TO PARTS LIST, SECTION8

CAUTION

THE ⬚ MARK INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

CONTENTS

INTERCONNECTION

INTERCONNECTION SCM0

VTR MAIN

CONTROL SCM1
VIDE01 .... SCM2
VIDE02 .... SCM3
LCD SCM4
LCD SCM5
SOUND TITLE SCM6
DIGITAL_I/F SCM7
AUDIO SCM8

JACK

JACK SCM9

MOTHER

MOTHER (1/2) SCM10
MOTHER (2/2) SCM11

EJECT

EJECT SCM12

REMOCON

REMOCON SCM12

ZOOM SW

ZOOM SW SCM12

AWT

AWT SCM12

LCD

LCD SCM13

EVF

EVF SCM13

PHOTO SHOT

PHOTO SHOT SCM13

DRIVE

DRIVE SCM14

POWER

POWER SCM15

CAMERA MAIN & CAMERA OPERATION

CAMERA MAIN & CAMERA OPERATION SCM16

E.V.F(A) & E.V.F(B)

E.V.F(A) & E.V.F(B) SCM17

HEAD AMP

HEAD AMP SCM18

FRONT

FRONT SCM19

TOP OPERATION

TOP OPERATION SCM20

REAR OPERATION

REAR OPERATION SCM20

MIC

MIC SCM21

EVF 2

EVF 2 .... SCM22

EVR EXT

EVR EXT SCM23

HANDLE ZOOM

HANDLE ZOOM SCM24

MIC AMP

CONNECT SCM25
AMP SCM26

LCD CONTROL

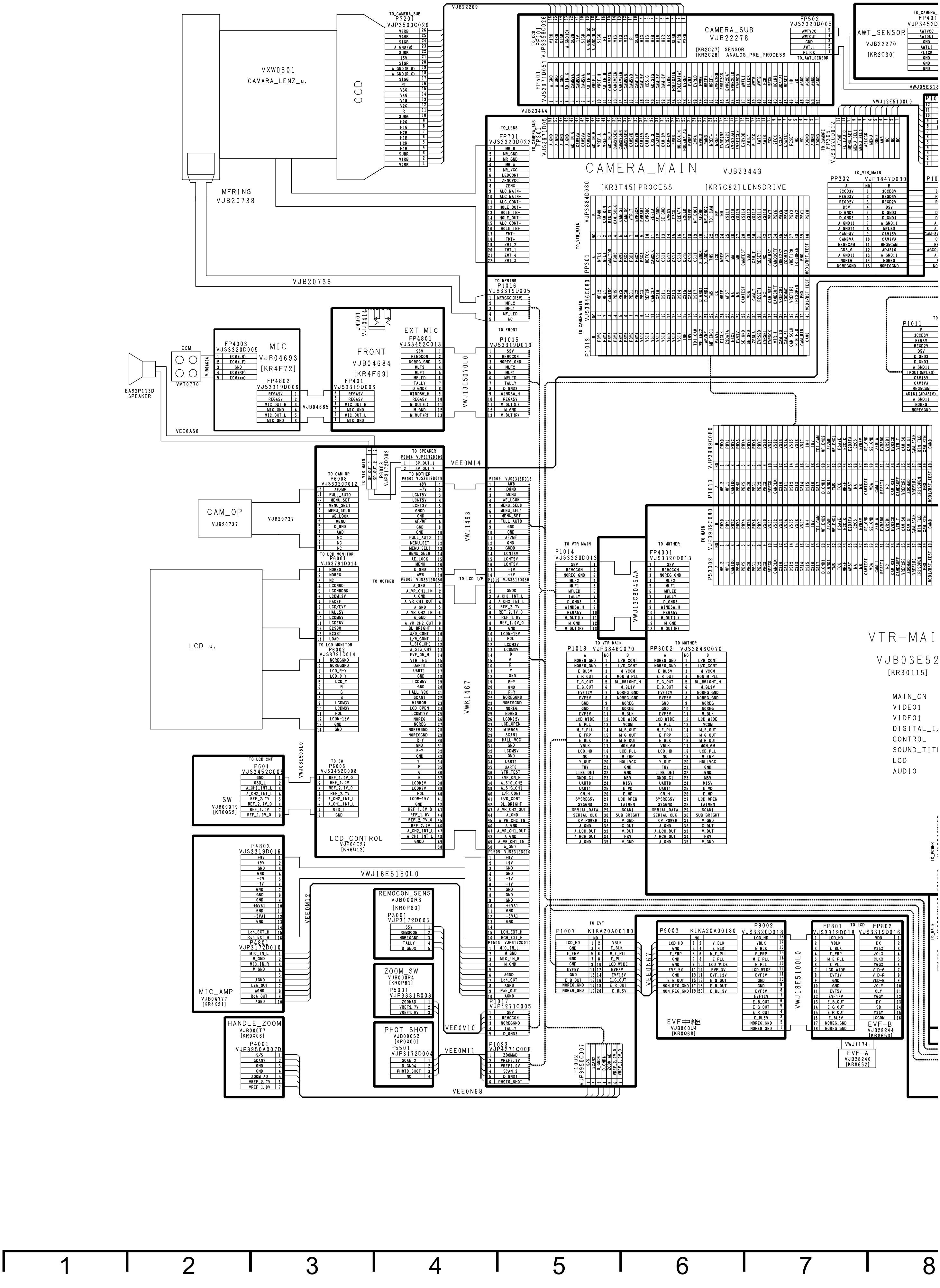
LCD CONTROL (1/3) SCM27
LCD CONTROL (2/3) SCM28
LCD CONTROL (3/3) SCM29

SUB POWER

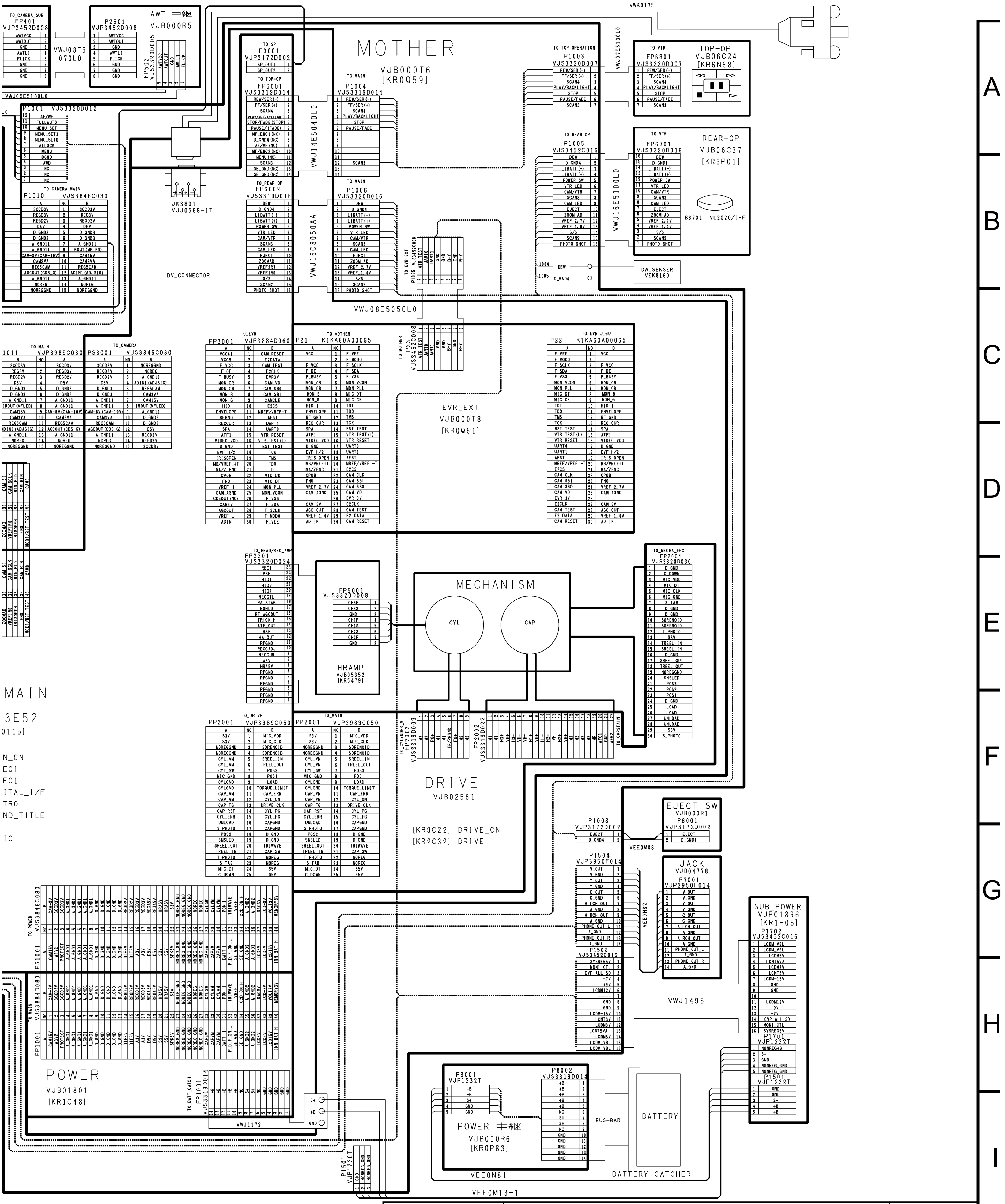
SUB POWER (1/2) SCM30
SUB POWER (2/2) SCM31

SW

SW SCM32



VXW0501
CAMARA_LENZ_u.
CCD
TO_CAMERA_SUB
PS201
VJP3500C026
VJB22269
MFRING
VJB20738
CAMERA_SUB
VJB22278
[KR2C27] SENSOR
[KR2C28] ANALOG_PRE_PROCESS
TO_CCD
PP501
VJP3358C026
FP501
VJS3971D051
FP502
VJS3320D005
TO_AWT_SENSOR
AWT_SENSOR
VJB22270
[KR2C30]
TO_CAMERA_
FP401
VJP3452D
VWJ05E513
VWJ12E5100L0
VJB23444
TO_LENS
FP701
VJS3320D022
TO_CAMERA_SUB
FP301
VJS3971D051
CAMERA_MAIN
VJB23443
[KR3T45] PROCESS
[KR7C82] LENSDRIVE
TO_CAMOPE
FP305
VJS3320D012
TO_VTR_MAIN
PP302
VJP3847D030
PP301
VJP3884D080
TO_VTR_MAIN
VJB20738
TO MFRING
P1016
VJS3319D005
TO FRONT
P1015
VJS3319D013
TO CAMERA MAIN
P1012
VJS3846C080
P1011
ECM
VJB04694
VMT0770
EAS2P113D
SPEAKER
FP4003
VJS3320D005
MIC
VJB04693
[KR4F72]
FP4802
VJS3319D006
VJB04685
J4001
VJJ0414
FRONT
VJB04684
[KR4F69]
EXT MIC
FP4801
VJS3452C013
FP401
VJS3319D006
VWJ13E5070L0
VEE0A50
TO SPEAKER
P6004 VJP3172D002
TO VTR MAIN
P6003
VJP3172D002
VEE0M14
TO CAM OP
P6008
VJS3320D012
TO MOTHER
P6007 VJS3319D018
P1009 VJS3319D018
CAM_OP
VJB20737
VJB20737
VWJ1493
TO LCD MONITOR
P6001
VJS3791D014
TO MOTHER
P6005 VJS3319D050
TO LCD I/F
P1019 VJS3319D050
LCD u.
TO LCD MONITOR
P6002
VJS3791D014
VWK1467
TO VTR MAIN
P1014
VJS3320D013
VWJ13C8045AA
TO MOTHER
FP4001
VJS3320D013
P1013
VJP3989C080
TO MAIN
PS3002
VJP3989C080
TO VTR MAIN
P1018 VJP3846C070
TO MOTHER
PP3002 VJS3846C070
VTR-MAI
VJB03E52
[KR30115]
MAIN_CN
VIDE01
VIDE01
DIGITAL_I
CONTROL
SOUND_TIT
LCD
AUDIO
TO LCD CNT
P601
VJS3452C008
SW
VJB000T9
[KR0Q62]
VWJ08E505L0
TO SW
P6006
VJS3452C008
LCD_CONTROL
VJP06E27
[KR6U12]
P4802
VJS3319D016
VWJ16E5150L0
P1505 VJS3319D016
VEE0M12
P4801
VJP3172D010
MIC_AMP
VJB04777
[KR4K21]
REMOCON_SENS
VJB000R3
[KR0P80]
P3001
VJP3172D005
P1503 VJP3172D010
ZOOM_SW
VJB000R4
[KR0P81]
P5001
VJP3331B003
HANDLE_ZOOM
VJB000T7
[KR0Q06]
P4001
VJP3350A007D
PHOT SHOT
VJB00052
[KR0Q00]
P5501
VJP3172D004
VEE0M10
VEE0M11
P1017
VJP4271C005
P1023
VJP4271C006
P1002
VJP3950C007
VEE0N68
TO EVF
P1007 K1KA20A00180
VEE0N67
P9003 K1KA20A00180
P9002
VJS3320D018
EVF中継
VJB000U4
[KR0Q68]
VWJ18E5100L0
TO LCD
FP801
VJS3319D018
FP802
VJS3319D016
EVF-B
VJB28244
[KR8653]
VWJ1174
EVF-A
VJB28240
[KR8652]
TO_POWER
TO_MAIN
1
2
3
4
5
6
7
8



MOTHER
VJB000T6
[KR0Q59]
AWT 中継
VJB000R5
TOP-OP
VJB06C24
[KR6N68]
REAR-OP
VJB06C37
[KR6P01]
EVR_EXT
VJB000T8
[KR0Q61]
MECHANISM
CYL
CAP
HRAMP
VJB05352
[KR5479]
DRIVE
VJB02561
[KR9C22] DRIVE_CN
[KR2C32] DRIVE
EJECT_SW
VJB000R1
JACK
VJB04778
SUB_POWER
VJP01896
[KR1F05]
POWER
VJB01801
[KR1C48]
POWER 中継
VJB000R6
[KR0P83]
BATTERY
BATTERY CATCHER
BUS-BAR
DW_SENSER
VEK8160
B6701 VL2020/IHF
JK3801
VJJ0568-1T
DV_CONNECTOR
MAIN
3E52
VWK0175
VWJ08E5070L0
VWJ05E5180L0
VWJ14E5040L0
VWJ16C8050AA
VWJ08E5050L0
VWJ16E5100L0
VWJ07E5130L0
VWJ1495
VWJ1172
VEE0M08
VEE0N82
VEE0N81
VEE0M13-1
A
B
C
D
E
F
G
H
I
J
8
9
10
11
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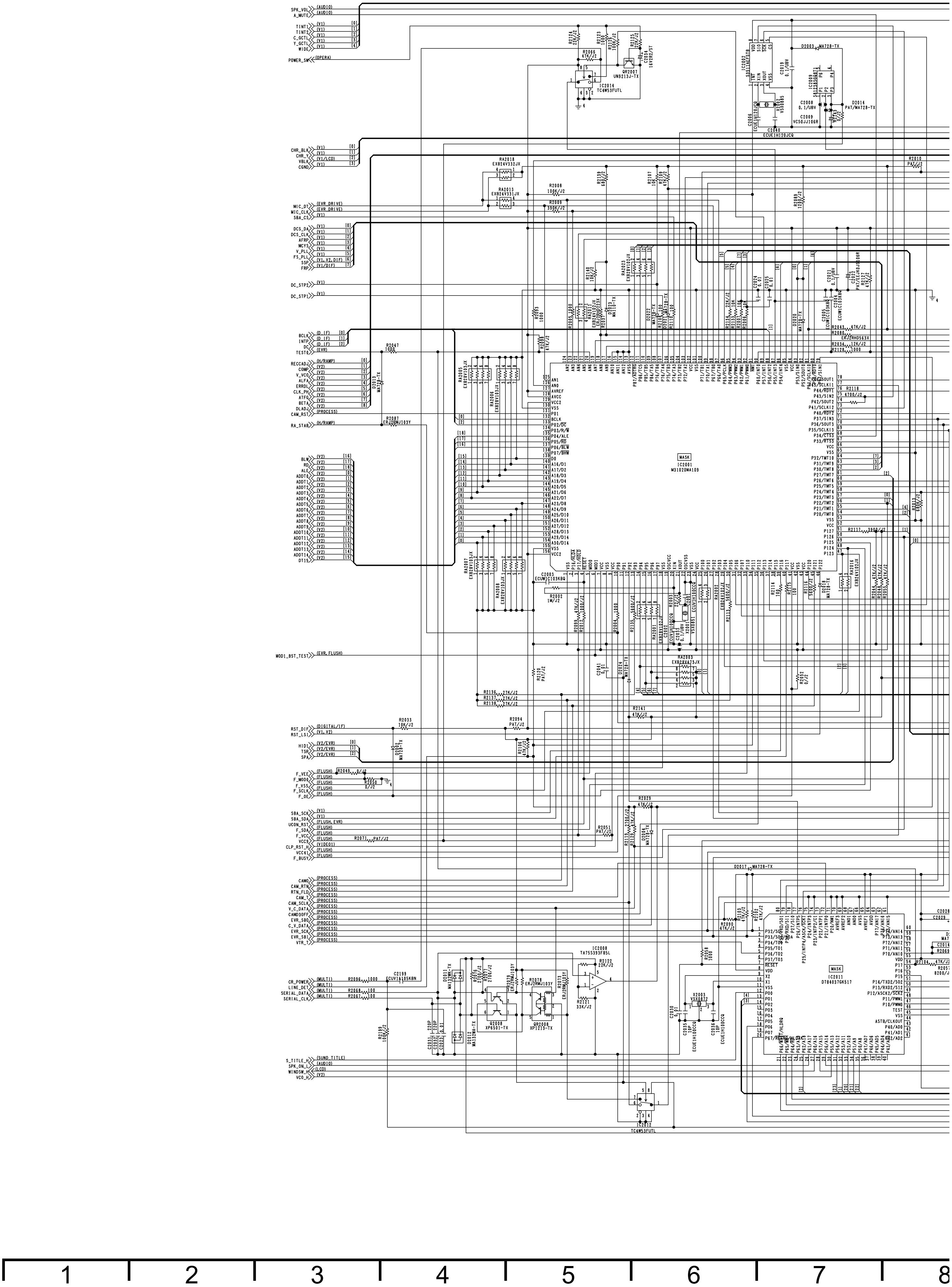
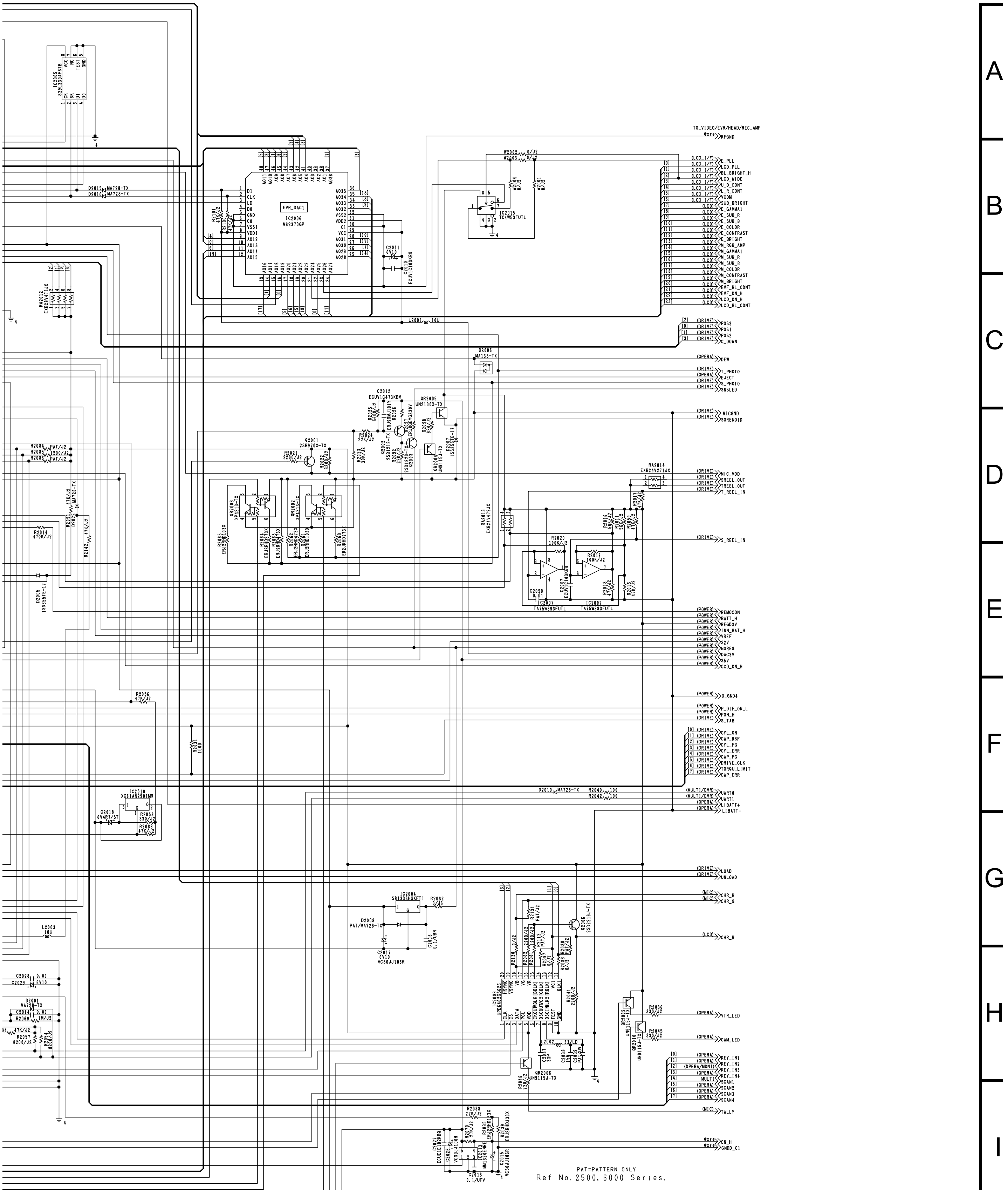
13
14
15

COMPONENT NAME	INTERCONNECTION	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
	KR9H76	
	SCM000	


SPK_VOL
A_MUTE
TINT1
TINT2
C_GCTL
Y_GCTL
WIDE
POWER_SW
CHR_BLK
CHR_V
VBLK
CGND
MIC_DT
MIC_CLK
SBA_CS
DCS_DA
DCS_CLK
AFRP
MCYS
V_PLL
FS_PLL
SSP
FRP
DC_STP2
DC_STP1
BCLK
INTP
DC
TEST6
RECCADJ
COMP
V_VCO
ALFA
ERRDL
CLK_PH
ATFG
BETA
DLADJ
CAM_RST
RA_STAB
BLW
RD
ALE
ADDT0
ADDT1
ADDT2
ADDT3
ADDT4
ADDT5
ADDT6
ADDT7
ADDT8
ADDT9
ADDT10
ADDT11
ADDT12
ADDT13
ADDT14
DT15
MOD1_BST_TEST
RST_DIF
RST_LSI
HID
TSR
SPA
F_VEE
F_MODE
F_VSS
F_SCLK
F_OE
SBA_SCK
SBA_SDA
UCON_RST
F_SDA
F_VCC
VCC3
CLP_RST_H
VCC41
F_BUSY
CAMO
CAM_RTN
RTN_FLD
CAM_I
CAM_SCLK
V_C_DATA
CAMD3OFF
EVR_SBO
C_V_DATA
EVR_SCK
EVR_SBI
VTR_I
CR_POWER
LINE_DET
SERIAL_DATA
SERIAL_CLK
S_TITLE_H
SPK_ON_L
WINDSW_H
VCO_H
IC2001
M31020MA109
MASK
IC2011
D784037GK517
IC2014
TC4W53FUTL
IC2012
TC4W53FUTL
IC2008
TA75S393F85L
IC2002
IC2009
QR2007
UN9213J-TX
Q2006
XP6501-TX
QR2008
XP1213-TX
X2003
D2017 MA728-TX
D2003 MA728-TX
D2014 PAT/MA728-TX
RA2018 EXB24V332JX
RA2013 EXB24V331JX
RA2005
RA2006
RA2007
RA2008
RA2003 EXB28V473JX
R2008 100K/J2
R2009 390K/J2
R2047 1000
R2087 ERJ2GMJ103Y
R2033 10K/J2
R2094 PAT/J2
R2141 47K/J2
R2029 47K/J2
R2051 PAT/J2
R2071 PAT/J2
R2096 1000
R2068 100
R2067 100
R2121 33K/J2
R2122 22K/J2
R2118 4700/J2
R2117 5600/J2
R2010 PAT/J2
R2002 1M/J2
C2003 ECUV1C103KBQ
C2199 ECUV1A105KBN
C2040 ECUE1H120JCQ
(AUDIO)
(V1)
(OPERA)
(V1/LCD)
(EVR_DRIVE)
(V1,V2,DIF)
(V1/DIF)
(D_IF)
(EVR)
(H/RAMP)
(V2)
(PROCESS)
(EVR,FLUSH)
(DIGITAL/IF)
(V1,V2)
(V2/EVR)
(FLUSH)
(FLUSH,EVR)
(VIDEO1)
(MULTI)
(SUND_TITLE)
(LCD)
1
2
3
4
5
6
7
8


IC2005 S-29L330AFJ-TB
IC2006 EVR_DAC1 M62370GP
IC2015 TC4W53FUTL
IC2007 TA75W393FUTL
IC2010 XC61AN2901MR
IC2004 S81333HGKFT1
IC2003 UPD6453GS
RA2014 EXB24V271JX
TO_VIDEO/EVR/HEAD/REC_AMP
@xre RFGND
[0] (LCD_I/F) E_PLL
[1] (LCD_I/F) LCD_PLL
[2] (LCD_I/F) BL_BRIGHT_H
[3] (LCD_I/F) LCD_WIDE
[4] (LCD_I/F) U_D_CONT
[5] (LCD_I/F) L_R_CONT
[6] (LCD_I/F) VCOM
[7] (LCD) SUB_BRIGHT
[8] (LCD) E_GAMMA1
[9] (LCD) E_SUB_R
[10] (LCD) E_SUB_B
[11] (LCD) E_COLOR
[12] (LCD) E_CONTRAST
[13] (LCD) E_BRIGHT
[14] (LCD) M_RGB_AMP
[15] (LCD) M_GAMMA1
[16] (LCD) M_SUB_R
[17] (LCD) M_SUB_B
[18] (LCD) M_COLOR
[19] (LCD) M_CONTRAST
[20] (LCD) M_BRIGHT
[21] (LCD) EVF_BL_CONT
[22] (LCD) EVF_ON_H
[23] (LCD) LCD_ON_H
(LCD) LCD_BL_CONT
[2] (DRIVE) POS3
[0] (DRIVE) POS1
[1] (DRIVE) POS2
[3] (DRIVE) C_DOWN
(OPERA) DEW
(DRIVE) T_PHOTO
(OPERA) EJECT
(DRIVE) S_PHOTO
(DRIVE) SNSLED
(DRIVE) MICGND
(DRIVE) SORENOID
(DRIVE) MIC_VDD
(DRIVE) SREEL_OUT
(DRIVE) TREEL_OUT
(DRIVE) T_REEL_IN
(DRIVE) S_REEL_IN
(POWER) REMOCON
(POWER) BATT_H
(POWER) REGD3V
(POWER) INN_BAT_H
(POWER) VREF
(POWER) S2V
(POWER) NOREG
(POWER) DAC3V
(POWER) S5V
(POWER) CCD_ON_H
(POWER) D_GND4
(POWER) P_DIF_ON_L
(POWER) PON_H
(DRIVE) S_TAB
[0] (DRIVE) CYL_ON
[1] (DRIVE) CAP_RSF
[2] (DRIVE) CYL_FG
[3] (DRIVE) CYL_ERR
[4] (DRIVE) CAP_FG
[5] (DRIVE) DRIVE_CLK
[6] (DRIVE) TORQU_LIMIT
[7] (DRIVE) CAP_ERR
(MULTI/EVR) UART0
(MULTI/EVR) UART1
(OPERA) LIBATT+
(OPERA) LIBATT-
(DRIVE) LOAD
(DRIVE) UNLOAD
(MIC) CHR_B
(MIC) CHR_G
(LCD) CHR_R
(OPERA) VTR_LED
(OPERA) CAM_LED
[0] (OPERA) KEY_IN1
[1] (OPERA) KEY_IN2
[2] (OPERA/MONI) KEY_IN3
[3] (OPERA) KEY_IN4
[4] MULTI SCAN1
[5] (OPERA) SCAN2
[6] (OPERA) SCAN3
[7] (OPERA) SCAN4
(MIC) TALLY
@xre CN_H
@xre GNDD_C1
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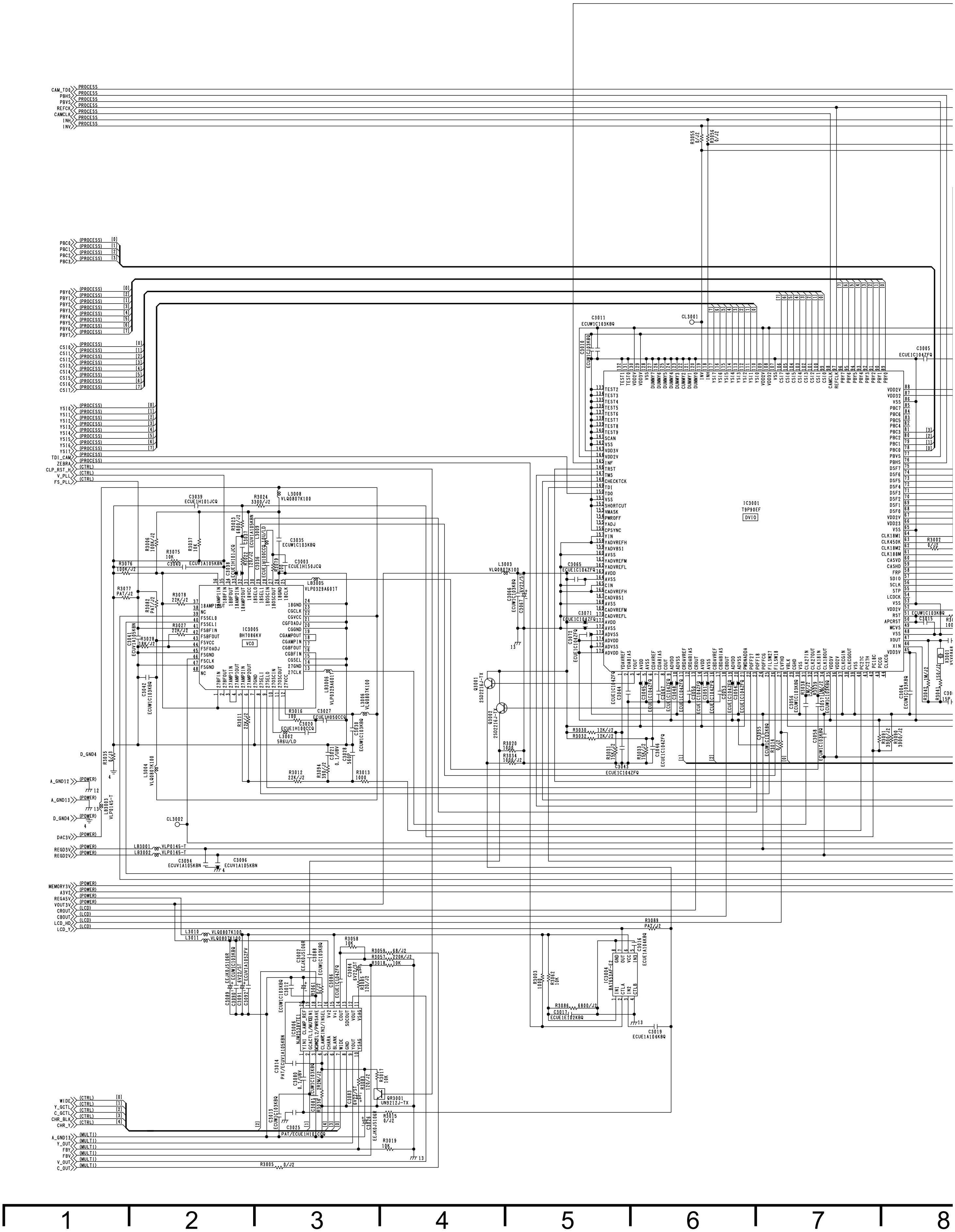
PAT=PATTERN ONLY
Ref No. 2500, 6000 Series.

COMPONENT NAME	VTR MAIN (CONTROL)	01/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP03E35	KR30115	
	SCM001	


CAM_TD0 (PROCESS)
PBHS (PROCESS)
PBVS (PROCESS)
REFCK (PROCESS)
CAMCLK (PROCESS)
INH (PROCESS)
INV (PROCESS)
PBC0–PBC3 (PROCESS) [0]–[3]
PBY0–PBY7 (PROCESS) [0]–[7]
CSI0–CSI7 (PROCESS) [0]–[7]
YSI0–YSI7 (PROCESS) [0]–[7]
TDI_CAM (PROCESS)
ZEBRA (PROCESS)
CLP_RST_H (CTRL)
V_PLL (CTRL)
FS_PLL (CTRL)
D_GND4
A_GND12 (POWER)
A_GND13 (POWER)
D_GND4 (POWER)
DAC3V (POWER)
REGD3V (POWER)
REGD2V (POWER)
MEMORY3V (POWER)
A3V2 (POWER)
REGA5V (POWER)
VOUT3V (POWER)
CROUT (LCD)
CBOUT (LCD)
LCD_HD (LCD)
LCD_Y (LCD)
WIDE (CTRL) [0]
Y_GCTL (CTRL) [1]
C_GCTL (CTRL) [2]
CHR_BLK (CTRL) [3]
CHR_Y (CTRL) [4]
A_GND13 (MULTI)
Y_OUT (MULTI)
FBY (MULTI)
FBV (MULTI)
V_OUT (MULTI)
C_OUT (MULTI)
IC3001 T9P90EF DVIO
IC3005 BH7086KV VCO
IC3006 NJM2538VTE1
IC3004 BA7653AF-E2
Q3001 2SD2216J-TX
Q3002 2SD2216J-TX
QR3001 UN9212J-TX
CL3001
CL3002
C3011 ECUW1C103KBQ
C3010 ECUW1C103KBQ
C3005 ECUE1C104ZFQ
R3055 0/J2
R3056 0/J2
R3002 0/J2
C3015 ECUW1C103KBQ
X3001
R3042 1M/J2
R3041 150/J2
C3004 ECUW1C103KBQ
C3065 ECUE1C104ZFQ
C3071 ECUE1C104ZFQ
C3072 ECUE1C104ZFQ
C3044 ECUE1C104ZFQ
C3045 ECUE1C104ZFQ
C3047
C3048 ECUE1C104ZFQ
C3050 ECUE1C104ZFQ
C3051 ECUE1C104ZFQ
C3053
C3054 ECUE1C104ZFQ
C3056 ECUW1C103KBQ
R3038 1M/J2
R3039 1M/J2
C3057 ECUW1C103KBQ
C3055 ECUW1C103KBQ
R3014 0/J2
C3058 ECUW1C103KBQ
R3091 3900/J2
R3090 3900/J2
R3030 12K/J2
R3032 12K/J2
R3031 15K/J2
R3033 15K/J2
C3046 ECUE1C104ZFQ
C3043 ECUE1C104ZFQ
L3003 VLQ0807K100
C3066 ECUW1C103KBQ
C3067 6V22/ST
R3020 1000
R3034 1000/J2
C3039 ECUE1H101JCQ
R3024 3300/J2
L3008 VLQ0807K100
R3006 100K/J2
R3037 10K
R3075 10K
C3040 ECUV1A105KBN
R3076 100K/J2
R3077 PAT/J2
R3082 PAT/J2
R3078 22K/J2
R3027 22K/J2
R3028 18K/J2
C3041 ECUV1A105KBN
C3042 ECUW1C103KBQ
R3023 6800/J2
C3038 ECUE1H101JCQ
C3037 ECUV1A105KBN
R3022 120/J2
C3036 ECUE1H100CCQ
L3009 10U/LD
R3079 100
C3035 ECUW1C103KBQ
C3003 ECUE1H150JCQ
LB3005 VLP0329A601T
LB3006 VLP0329A601T
L3006 VLQ0807K100
R3016 100
C3027 ECUE1H050CCQ
C3020 ECUE1H100CCQ
L3002 5R6U/LD
C3030 ECUW1C103KBQ
R3011 22K/J2
C3021 0.1/UBV
C3028 560P
R3094 390/J2
R3012 22K/J2
R3013 1000
R3035 0/J3
L3004 VLQ0807K100
LB3003 VLP0145-T
LB3001 VLP0145-T
LB3002 VLP0145-T
C3094 ECUV1A105KBN
C3096 ECUV1A105KBN
L3010 VLQ0807K100
L3011 VLQ0807K100
C3089 EEJK0J5106R
C3090 ECUW1C103KBQ
C3091 6V22/ST
C3092 ECUV1A105ZFV
C3002 EEJK0J5106R
C3088 ECUW1C103KBQ
C3012 ECUW1C103KBQ
R3061 0/J2
C3086 ECUE1C104ZFQ
R3058 10K
R3059 68/J2
R3057 220K/J2
R3018 10K
C3084 6V22/ST
R3085 120/J2
C3014 PAT/ECUV1A105KBN
C3080 0.1/UBV
C3081 ECUW1C103KBQ
R3036 2R2M/J2
C3083 6V22/ST
R3083 120/J2
R3017 10K
C3013 ECUW1C103KBQ
C3025 PAT/ECUE1H101CCQ
C3026 EEJK0J5106R
R3015 0/J2
R3019 10K
R3005 0/J2
R3003 1000
R3062 10K
R3086 6800/J2
C3017 ECUE1E102KBQ
C3016 ECUE1A104KBQ
R3089 PAT/J2
C3019 ECUE1A104KBQ
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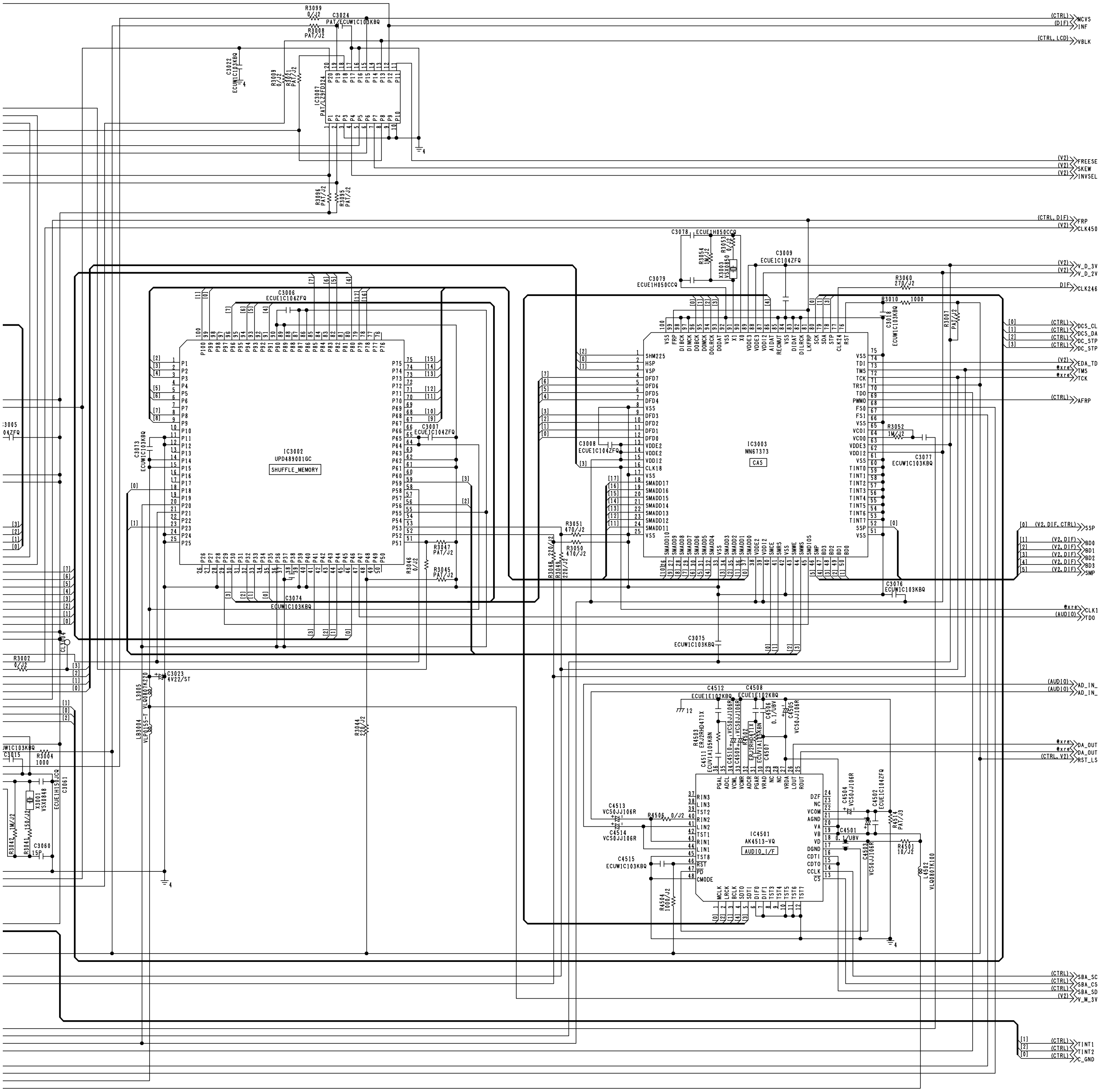
IC3002
UPD489001GC
SHUFFLE_MEMORY
IC3003
MN67373
CA5
IC4501
AK4513-VQ
AUDIO_I/F
IC3007
MCVS
INF
VBLK
FREESEL
SKEW
INVSEL
FRP
CLK450K
V_D_3V
V_D_2V
CLK246
DCS_CLK
DCS_DA
DC_STP1
DC_STP2
EDA_TDO
TMS
TCK
AFRP
SSP
BD0
BD1
BD2
BD3
SMP
CLK18M2
TDO
AD_IN_L
AD_IN_R
DA_OUT_L
DA_OUT_R
RST_LSI
SBA_SCK
SBA_CS
SBA_SDA
V_M_3V
TINT1
TINT2
C_GND
A
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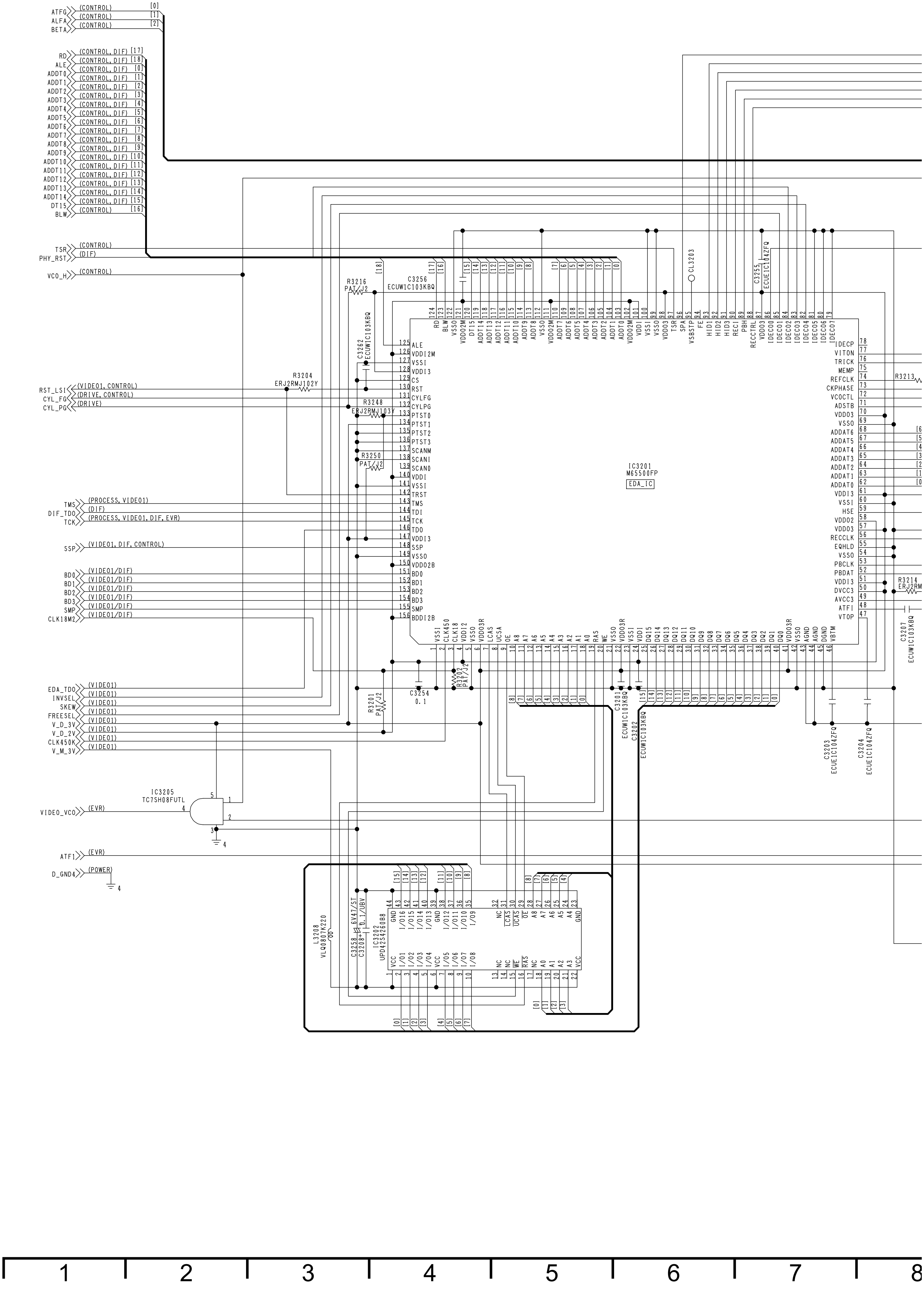
PAT=PATTERN ONLY
Ref No. 3000, 4500 Series.

COMPONENT NAME	**VTR MAIN (VIDE01)**	02/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP03E35	KR30115 **SCM002**	


ATFG (CONTROL) [0]
ALFA (CONTROL) [1]
BETA (CONTROL) [2]
RD (CONTROL, DIF) [17]
ALE (CONTROL, DIF) [18]
ADDT0 (CONTROL, DIF) [0]
ADDT1 (CONTROL, DIF) [1]
ADDT2 (CONTROL, DIF) [2]
ADDT3 (CONTROL, DIF) [3]
ADDT4 (CONTROL, DIF) [4]
ADDT5 (CONTROL, DIF) [5]
ADDT6 (CONTROL, DIF) [6]
ADDT7 (CONTROL, DIF) [7]
ADDT8 (CONTROL, DIF) [8]
ADDT9 (CONTROL, DIF) [9]
ADDT10 (CONTROL, DIF) [10]
ADDT11 (CONTROL, DIF) [11]
ADDT12 (CONTROL, DIF) [12]
ADDT13 (CONTROL, DIF) [13]
ADDT14 (CONTROL, DIF) [14]
DT15 (CONTROL, DIF) [15]
BLW (CONTROL) [16]
TSR (CONTROL)
PHY_RST (DIF)
VCO_H (CONTROL)
RST_LSI (VIDEO1, CONTROL)
CYL_FG (DRIVE, CONTROL)
CYL_PG (DRIVE)
TMS (PROCESS, VIDEO1)
DIF_TDO (DIF)
TCK (PROCESS, VIDEO1, DIF, EVR)
SSP (VIDEO1, DIF, CONTROL)
BD0 (VIDEO1/DIF)
BD1 (VIDEO1/DIF)
BD2 (VIDEO1/DIF)
BD3 (VIDEO1/DIF)
SMP (VIDEO1/DIF)
CLK18M2 (VIDEO1/DIF)
EDA_TDO (VIDEO1)
INVSEL (VIDEO1)
SKEW (VIDEO1)
FREESEL (VIDEO1)
V_D_3V (VIDEO1)
V_D_2V (VIDEO1)
CLK450K (VIDEO1)
V_M_3V (VIDEO1)
VIDEO_VCO (EVR)
ATF1 (EVR)
D_GND4 (POWER)
4
IC3205
TC7SH08FUTL
R3216
PAT/J2
C3256
ECUW1C103KBQ
C3262
ECUW1C103KBQ
R3204
ERJ2RMJ102Y
R3248
ERJ2RMJ103Y
R3250
PAT/J2
R3201
PAT/J2
R3202
PAT/J2
C3254
0.1
C3201
ECUW1C103KBQ
C3202
ECUW1C103KBQ
CL3203
C3255
ECUE1C104ZFQ
C3203
ECUE1C104ZFQ
C3204
ECUE1C104ZFQ
C3207
ECUW1C103KBQ
R3213
R3214
ERJ2RM
IC3201
M65500FP
EDA_IC
124 RD
123 BLW
122 VSSO
121 VDDO2M
120 DT15
119 ADDT14
118 ADDT13
117 ADDT12
116 ADDT11
115 ADDT10
114 ADDT9
113 ADDT8
112 VSSO
111 VDDO2M
110 ADDT7
109 ADDT6
108 ADDT5
107 ADDT4
106 ADDT3
105 ADDT2
104 ADDT1
103 ADDT0
102 VDDO2M
101 VDDI
100 VSSI
99 VSSO
98 VDDO3
97 TSR
96 SPA
95 VSBSTP
94 FE
93 HID1
92 HID2
91 HID3
90 RECI
89 PBH
88 RECCTRL
87 VDDO3
86 IDECO0
85 IDECO1
84 IDECO2
83 IDECO3
82 IDECO4
81 IDECO5
80 IDECO6
79 IDECO7
125 ALE
126 VDDI2M
127 VSSI
128 VDDI3
129 CS
130 RST
131 CYLFG
132 CYLPG
133 PTST0
134 PTST1
135 PTST2
136 PTST3
137 SCANM
138 SCANI
139 SCANO
140 VDDI
141 VSSI
142 TRST
143 TMS
144 TDI
145 TCK
146 TDO
147 VDDI3
148 SSP
149 VSSO
150 VDDO2B
151 BD0
152 BD1
153 BD2
154 BD3
155 SMP
156 BDDI2B
78 IDECP
77 VITON
76 TRICK
75 MEMP
74 REFCLK
73 CKPHASE
72 VCOCTL
71 ADSTB
70 VDDO3
69 VSSO
68 ADDAT6
67 ADDAT5
66 ADDAT4
65 ADDAT3
64 ADDAT2
63 ADDAT1
62 ADDAT0
61 VDDI3
60 VSSI
59 HSE
58 VDDO2
57 VDDO3
56 RECCLK
55 EQHLD
54 VSSO
53 PBCLK
52 PBDAT
51 VDDI3
50 DVCC3
49 AVCC3
48 ATFI
47 VTOP
1 VSSI
2 CLK450
3 CLK18
4 VDDI2
5 VSSO
6 VDDO3R
7 LCAS
8 UCSA
9 OE
10 A8
11 A7
12 A6
13 A5
14 A4
15 A3
16 A2
17 A1
18 A0
19 RAS
20 WE
21 VSSO
22 VDDO3R
23 VSSI
24 VDDI
25 DQ15
26 DQ14
27 DQ13
28 DQ12
29 DQ11
30 DQ10
31 DQ9
32 DQ8
33 DQ7
34 DQ6
35 DQ5
36 DQ4
37 DQ3
38 DQ2
39 DQ1
40 DQ0
41 VDDO3R
42 VSSO
43 AGND
44 AGND
45 DGND
46 VBTM
IC3202
UPD42S4260B8
44 GND
43 I/O16
42 I/O15
41 I/O14
40 I/O13
39 GND
38 I/O12
37 I/O11
36 I/O10
35 I/O9
32 NC
31 LCAS
30 UCAS
29 OE
28 A8
27 A7
26 A6
25 A5
24 A4
23 GND
1 VCC
2 I/O1
3 I/O2
4 I/O3
5 I/O4
6 VCC
7 I/O5
8 I/O6
9 I/O7
10 I/O8
13 NC
14 NC
15 WE
16 RAS
17 NC
18 A0
19 A1
20 A2
21 A3
22 VCC
C3258
6V47/ST
C3208
0.1/6BV
L3208
VLQ0807K220
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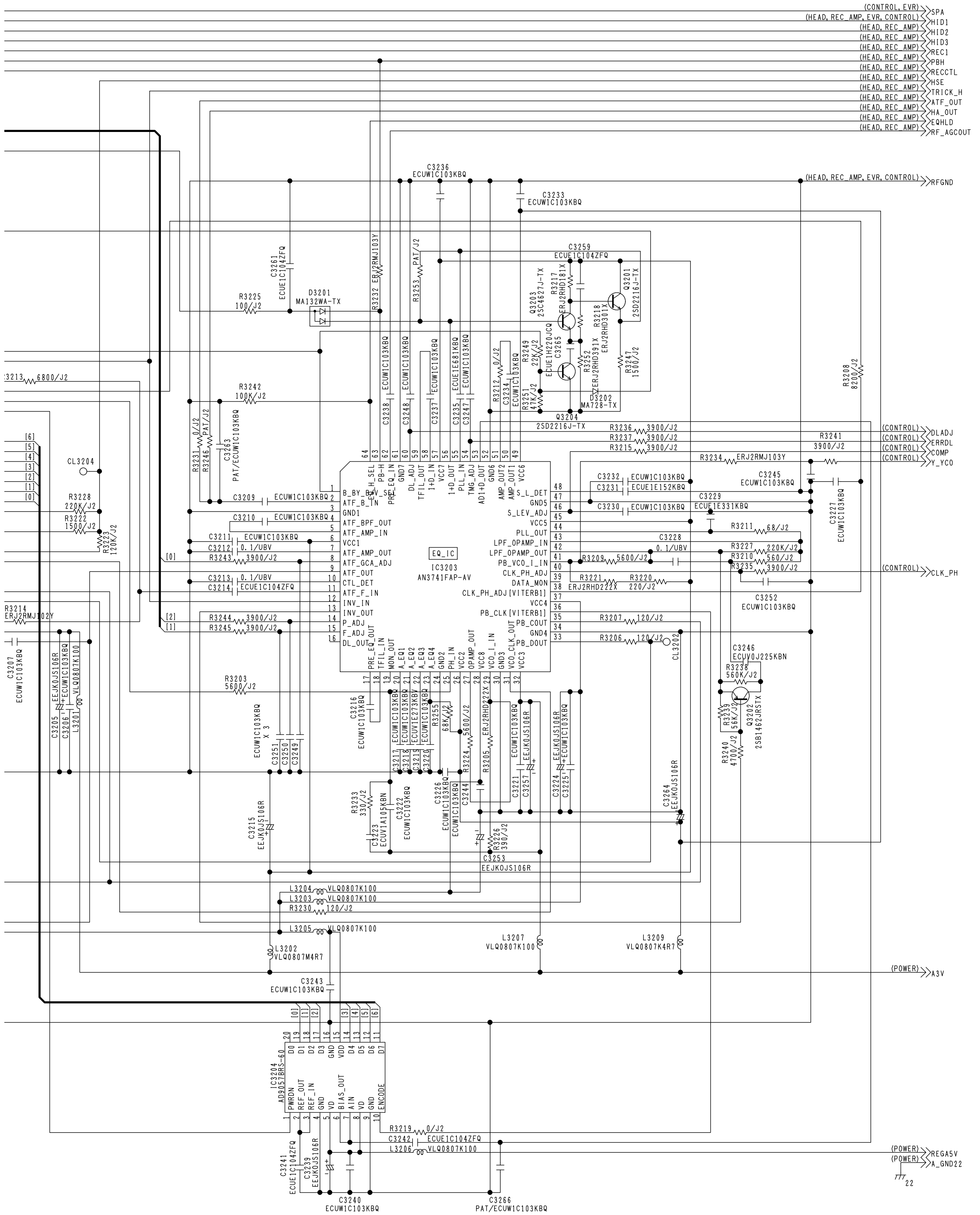

SPA
HID1
HID2
HID3
REC1
PBH
RECCTL
HSE
TRICK_H
ATF_OUT
HA_OUT
EQHLD
RF_AGCOUT
RFGND
DLADJ
ERRDL
COMP
Y_YCO
CLK_PH
A3V
REGA5V
A_GND22
(CONTROL, EVR)
(HEAD, REC_AMP, EVR, CONTROL)
(HEAD, REC_AMP)
(CONTROL)
(POWER)
EQ_IC
IC3203
AN3741FAP-AV
IC3204
AD9057BRS-60
Q3201 2SD2216J-TX
Q3202 2SB1462JRSTX
Q3203 2SC4627J-TX
Q3204 2SD2216J-TX
D3201 MA132WA-TX
D3202 MA728-TX
CL3202
CL3204
L3201 VLQ0807K100
L3202 VLQ0807M4R7
L3203 VLQ0807K100
L3204 VLQ0807K100
L3205 VLQ0807K100
L3206 VLQ0807K100
L3207 VLQ0807K100
L3209 VLQ0807K4R7
C3236 ECUW1C103KBQ
C3233 ECUW1C103KBQ
C3259 ECUE1C104ZFQ
C3261 ECUE1C104ZFQ
C3243 ECUW1C103KBQ
C3240 ECUW1C103KBQ
C3266 PAT/ECUW1C103KBQ
C3253 EEJK0JS106R
C3264 EEJK0JS106R
C3246 ECUV0J225KBN
C3252 ECUW1C103KBQ
C3245 ECUW1C103KBQ
C3229 ECUE1E331KBQ
R3225 100/J2
R3242 100K/J2
R3228 220K/J2
R3222 1500/J2
R3203 5600/J2
R3214 ERJ2RMJ102Y
R3234 ERJ2RMJ103Y
R3241 3900/J2
R3208 8200/J2
R3238 560K/J2
R3240 4700/J2
R3219 0/J2
R3230 120/J2
A
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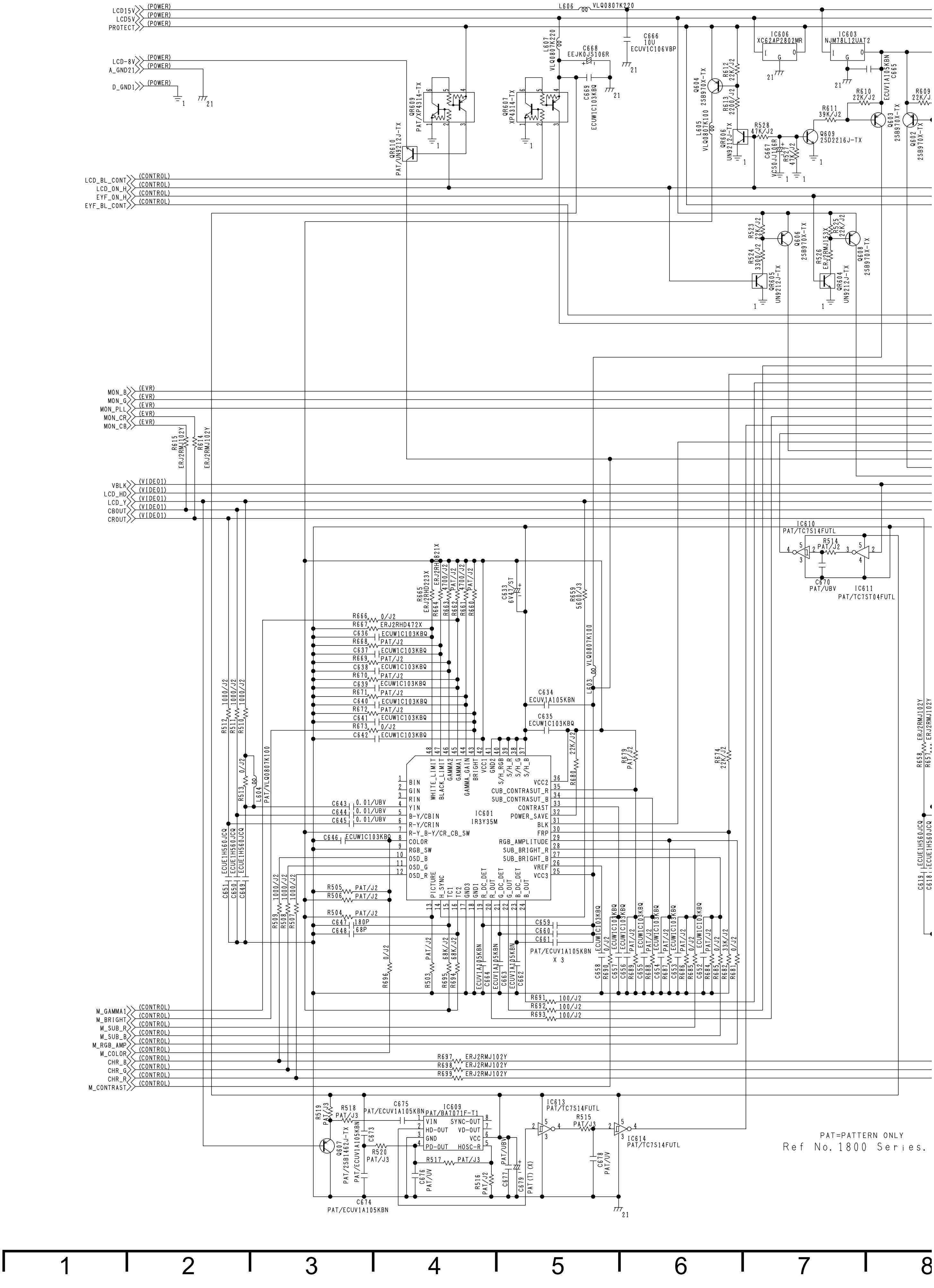
PAT=PATTERN ONLY
Ref No.3200 Series.

COMPONENT NAME	**VTR MAIN (VIDE02)**	03/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP03E35	KR30115	
	SCM003	



LCD15V (POWER)
LCD5V (POWER)
PROTECT (POWER)
LCD-8V (POWER)
A_GND21 (POWER)
D_GND1 (POWER)
LCD_BL_CONT (CONTROL)
LCD_ON_H (CONTROL)
EYF_ON_H (CONTROL)
EYF_BL_CONT (CONTROL)
MON_B (EVR)
MON_G (EVR)
MON_PLL (EVR)
MON_CR (EVR)
MON_CB (EVR)
VBLK (VIDEO1)
LCD_HD (VIDEO1)
LCD_Y (VIDEO1)
CBOUT (VIDEO1)
CROUT (VIDEO1)
M_GAMMA1 (CONTROL)
M_BRIGHT (CONTROL)
M_SUB_R (CONTROL)
M_SUB_B (CONTROL)
M_RGB_AMP (CONTROL)
M_COLOR (CONTROL)
CHR_B (CONTROL)
CHR_G (CONTROL)
CHR_R (CONTROL)
M_CONTRAST (CONTROL)
L606 VLQ0807K220
C666 10U ECUV1C106VBP
L607 VLQ0807K220
C668 EEJK0JS106R
C669 ECUW1C103KBQ
QR609 PAT/XP4314-TX
QR607 XP4314-TX
QR610 PAT/UN9212J-TX
IC606 XC62AP2802MR
IC603 NJM78L12UAT2
C665 ECUV1A105KBN
Q604 2SB970X-TX
R612 22K/J2
R613 2200/J2
L605 VLQ0807K100
QR606 UN9212J-TX
R528 47K/J2
C667 VCS0J106R
R527 47K/J2
Q609 2SD2216J-TX
R611 39K/J2
R610 22K/J2
Q603 2SB970X-TX
R609 22K/J
Q602 2SB970X-TX
R523 22K/J2
R524 3300/J2
Q606 2SB970X-TX
QR605 UN9212J-TX
R525 22K/J2
R526 ERJ2RMJ153X
Q608 2SB970X-TX
QR604 UN9212J-TX
R615 ERJ2RMJ102Y
R614 ERJ2RMJ102Y
IC610 PAT/TC7S14FUTL
R514 PAT/J2
C670 PAT/UBV
IC611 PAT/TC7ST04FUTL
R665 ERJ2RHD223X
R664 ERJ2RHD821X
R663 4700/J2
R662 PAT/J2
R661 4700/J2
R660 PAT/J2
C633 6V47/ST
R659 5600/J3
R666 0/J2
R667 ERJ2RHD472X
C636 ECUW1C103KBQ
R668 PAT/J2
C637 ECUW1C103KBQ
R669 PAT/J2
C638 ECUW1C103KBQ
R670 PAT/J2
C639 ECUW1C103KBQ
R671 PAT/J2
C640 ECUW1C103KBQ
R672 PAT/J2
C641 ECUW1C103KBQ
R673 0/J2
C642 ECUW1C103KBQ
L603 VLQ0807K100
C634 ECUV1A105KBN
C635 ECUW1C103KBQ
R512 1000/J2
R511 1000/J2
R510 1000/J2
R513 0/J2
L604 PAT/VLQ0807K100
C643 0.01/UBV
C644 0.01/UBV
C645 0.01/UBV
C646 ECUW1C103KBQ
IC601 IR3Y35M
BIN
GIN
RIN
YIN
B-Y/CBIN
R-Y/CRIN
R-Y_B-Y/CR_CB_SW
COLOR
RGB_SW
OSD_B
OSD_G
OSD_R
WHITE_LIMIT
BLACK_LIMIT
GAMMA2
GAMMA1
GAMMA_GAIN
BRIGHT
VCC1
GND2
S/H_RGB
S/H_R
S/H_G
S/H_B
VCC2
CUB_CONTRASUT_R
SUB_CONTRASUT_B
CONTRAST
POWER_SAVE
BLK
FRP
RGB_AMPLITUDE
SUB_BRIGHT_R
SUB_BRIGHT_B
VREF
VCC3
PICTURE
H_SYNC
TC1
TC2
GND3
R_DC_DET
R_OUT
G_DC_DET
G_OUT
B_DC_DET
B_OUT
R680 22K/J2
R679 PAT/J2
R674 22K/J2
C651 ECUE1H560JCQ
C650 ECUE1H560JCQ
C649 ECUE1H560JCQ
R509 1000/J2
R508 1000/J2
R507 1000/J2
R505 PAT/J2
R506 PAT/J2
R504 PAT/J2
C647 180P
C648 68P
R696 0/J2
R503 PAT/J2
R695 68K/J2
R694 68K/J2
C664 ECUV1A105KBN
C663 ECUV1A105KBN
C662 ECUV1A105KBN
C659
C660
C661
PAT/ECUV1A105KBN X 3
C658 ECUW1C103KBQ
R690 0/J2
C657 ECUW1C103KBQ
C656 ECUW1C103KBQ
R689 PAT/J2
R688 PAT/J2
C655 ECUW1C103KBQ
C654 ECUW1C103KBQ
R687 PAT/J2
C653 ECUW1C103KBQ
R686 PAT/J2
R685 0/J2
C652 ECUW1C103KBQ
R684 PAT/J2
R683 0/J2
R682 33K/J2
R681 0/J2
R691 100/J2
R692 100/J2
R693 100/J2
R658 ERJ2RMJ102Y
R657 ERJ2RMJ102Y
C619 ECUE1H560JCQ
C618 ECUE1H560JCQ
R697 ERJ2RMJ102Y
R698 ERJ2RMJ102Y
R699 ERJ2RMJ102Y
R519 PAT/J3
R518 PAT/J3
Q607 PAT/2SB1462J-TX
C673 PAT/ECUV1A105KBN
R520 PAT/J3
C675 PAT/ECUV1A105KBN
IC609 PAT/BA7071F-T1
VIN
HD-OUT
GND
PD-OUT
SYNC-OUT
VD-OUT
VCC
HOSC-R
R517 PAT/J3
C676 PAT/UV
R516 PAT/J2
C677 PAT/UBV
C679 PAT(T)(X)
C674 PAT/ECUV1A105KBN
IC613 PAT/TC7S14FUTL
R515 PAT/J3
C678 PAT/UV
IC614 PAT/TC7S14FUTL
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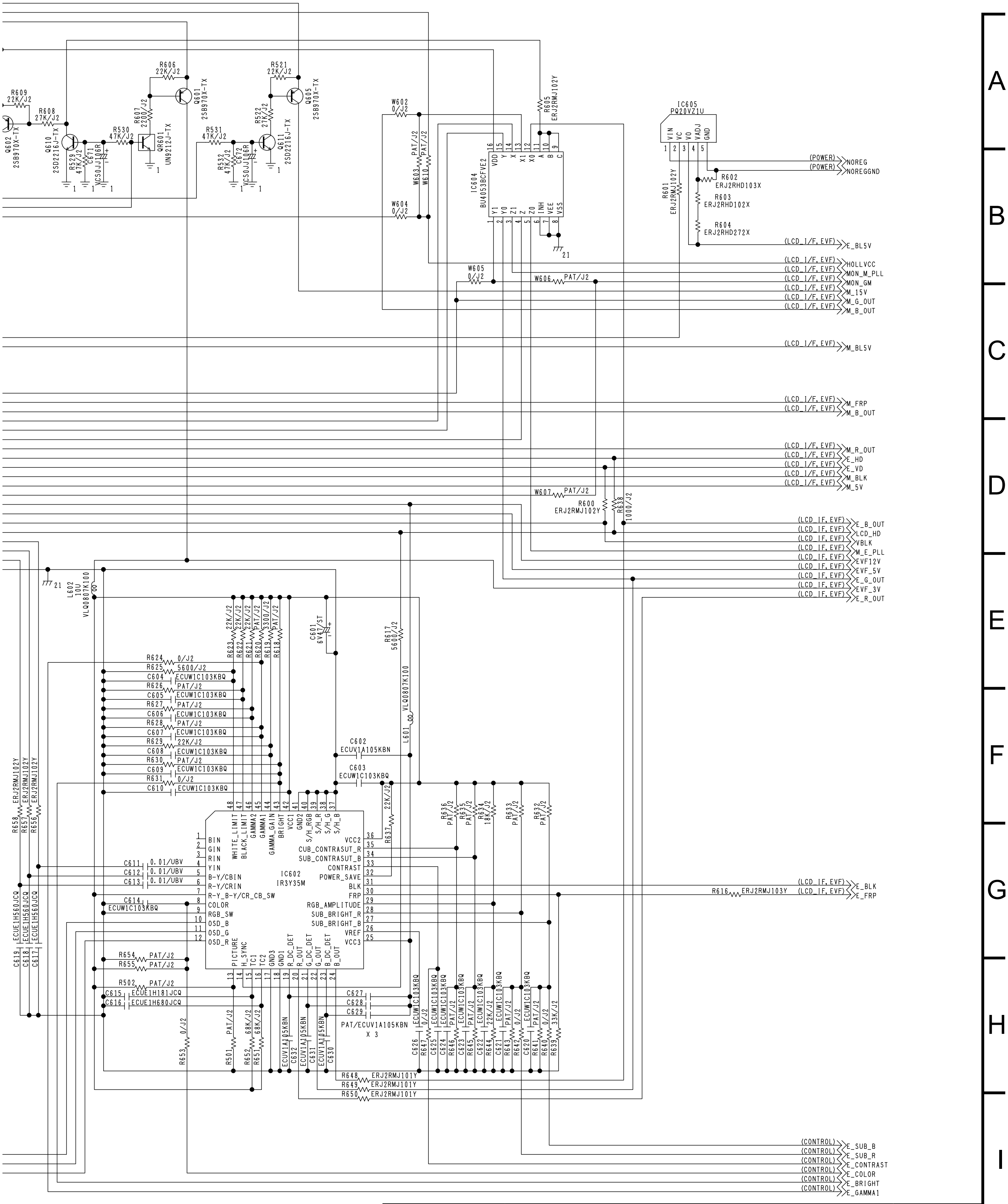
PAT=PATTERN ONLY

Ref No. 1800 Series.


A
B
C
D
E
F
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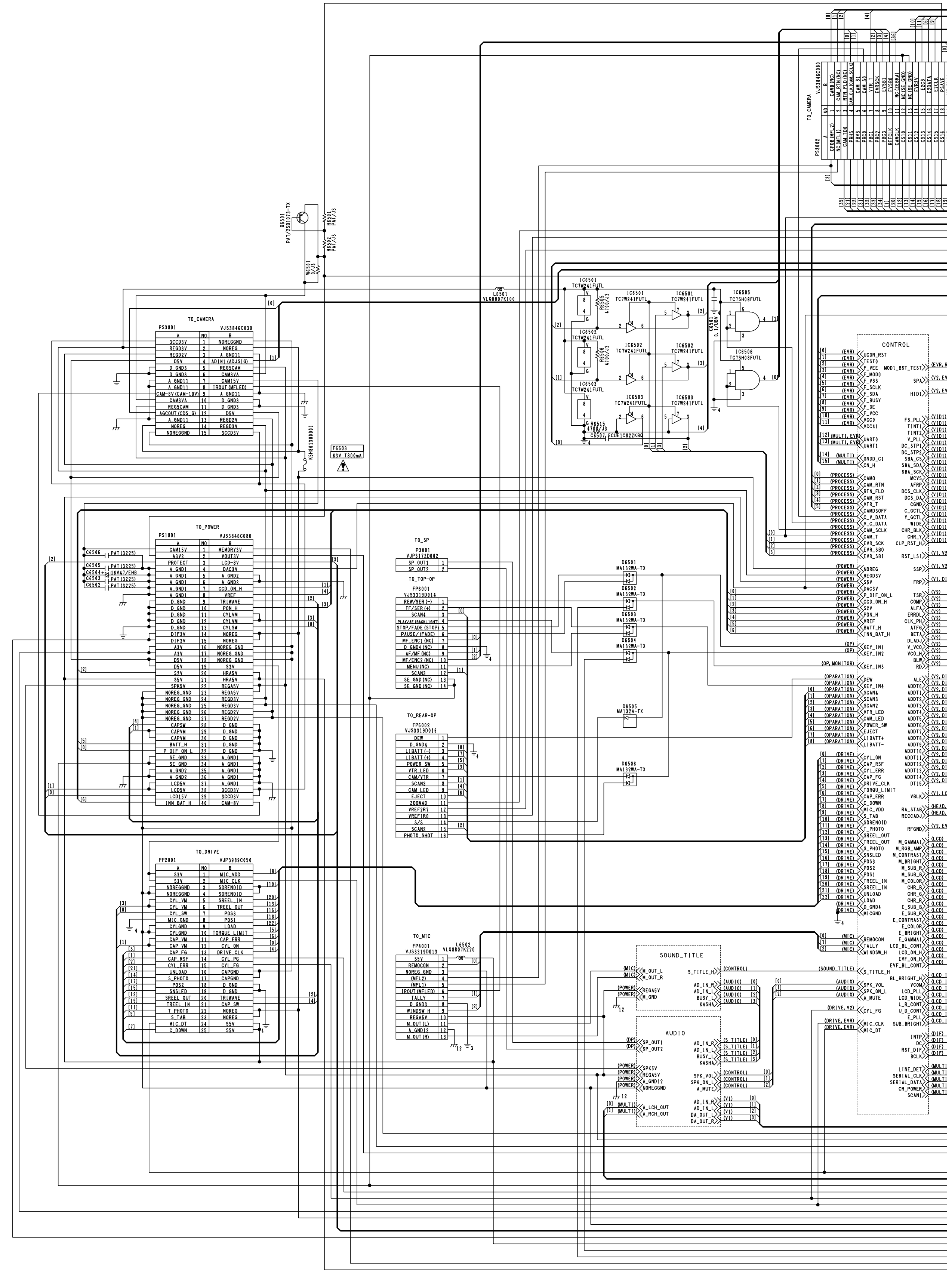
I
J
R606 22K/J2
Q601 2SB970X-TX
R521 22K/J2
Q605 2SB970X-TX
R609 22K/J2
R608 27K/J2
Q602 2SB970X-TX
Q610 2SD2216J-TX
R529 47K/J2
C671 VCS0J106R
R530 47K/J2
R607 2200/J2
QR601 UN9212J-TX
R531 47K/J2
R532 47K/J2
C672 VCS0J106R
R522 27K/J2
Q611 2SD2216J-TX
W602 0/J2
W603 PAT/J2
W610 PAT/J2
W604 0/J2
R605 ERJ2RMJ102Y
IC604 BU4053BCFVE2
VDD Y X Y0 X1 X0 A B C
Y1 Y0 Z1 Z Z0 INH VEE VSS
IC605 PQ20VZ1U
VIN VC VO VADJ GND
(POWER) NOREG
(POWER) NOREGGND
R602 ERJ2RHD103X
R601 ERJ2RMJ102Y
R603 ERJ2RHD102X
R604 ERJ2RHD272X
(LCD_I/F,EVF) E_BL5V
(LCD_I/F,EVF) HOLLVCC
(LCD_I/F,EVF) MON_M_PLL
(LCD_I/F,EVF) MON_GM
(LCD_I/F,EVF) M_15V
(LCD_I/F,EVF) M_G_OUT
(LCD_I/F,EVF) M_B_OUT
W605 0/J2
W606 PAT/J2
(LCD_I/F,EVF) M_BL5V
(LCD_I/F,EVF) M_FRP
(LCD_I/F,EVF) M_B_OUT
(LCD_I/F,EVF) M_R_OUT
(LCD_I/F,EVF) E_HD
(LCD_I/F,EVF) E_VD
(LCD_I/F,EVF) M_BLK
(LCD_I/F,EVF) M_5V
W607 PAT/J2
R600 ERJ2RMJ102Y
R638 1000/J2
(LCD_IF,EVF) E_B_OUT
(LCD_IF,EVF) LCD_HD
(LCD_IF,EVF) VBLK
(LCD_IF,EVF) M_E_PLL
(LCD_IF,EVF) EVF12V
(LCD_IF,EVF) EVF_5V
(LCD_IF,EVF) E_G_OUT
(LCD_IF,EVF) EVF_3V
(LCD_IF,EVF) E_R_OUT
L602 10U VLQ0807K100
R623 22K/J2
R622 22K/J2
R621 22K/J2
R620 PAT/J2
R619 3300/J2
R618 PAT/J2
C601 6V47/ST
R617 5600/J2
L601 VLQ0807K100
R624 0/J2
R625 5600/J2
C604 ECUW1C103KBQ
R626 PAT/J2
C605 ECUW1C103KBQ
R627 PAT/J2
C606 ECUW1C103KBQ
R628 PAT/J2
C607 ECUW1C103KBQ
R629 22K/J2
C608 ECUW1C103KBQ
R630 PAT/J2
C609 ECUW1C103KBQ
R631 0/J2
C610 ECUW1C103KBQ
C602 ECUV1A105KBN
C603 ECUV1A105KBN
R637 22K/J2
R658 ERJ2RMJ102Y
R657 ERJ2RMJ102Y
R656 ERJ2RMJ102Y
IC602 IR3Y35M
BIN GIN RIN YIN B-Y/CBIN R-Y/CRIN R-Y_B-Y/CR_CB_SW COLOR RGB_SW OSD_B OSD_G OSD_R
WHITE_LIMIT BLACK_LIMIT GAMMA2 GAMMA1 GAMMA_GAIN BRIGHT VCC1 GND2 S/H_RGB S/H_R S/H_G S/H_B
VCC2 CUB_CONTRASUT_R SUB_CONTRASUT_B CONTRAST POWER_SAVE BLK FRP RGB_AMPLITUDE SUB_BRIGHT_R SUB_BRIGHT_B VREF VCC3
PICTURE H_SYNC TC1 TC2 GND3 GND1 R_DC_DET R_OUT G_DC_DET G_OUT B_DC_DET B_OUT
C611 0.01/UBV
C612 0.01/UBV
C613 0.01/UBV
C614 ECUW1C103KBQ
R654 PAT/J2
R655 PAT/J2
R502 PAT/J2
C615 ECUE1H181JCQ
C616 ECUE1H680JCQ
C619 ECUE1H560JCQ
C618 ECUE1H560JCQ
C617 ECUE1H560JCQ
R636 PAT/J2
R635 PAT/J2
R634 18K/J2
R633 PAT/J2
R632 PAT/J2
R616 ERJ2RMJ103Y (LCD_IF,EVF) E_BLK
(LCD_IF,EVF) E_FRP
R653 0/J2
R501 PAT/J2
R652 68K/J2
R651 68K/J2
C632 ECUV1A105KBN
C631 ECUV1A105KBN
C630 ECUV1A105KBN
C627
C628
C629
PAT/ECUV1A105KBN X 3
C626 ECUW1C103KBQ
R647 0/J2
C625 ECUW1C103KBQ
C624 ECUW1C103KBQ
R646 PAT/J2
C623 ECUW1C103KBQ
R645 PAT/J2
C622 ECUW1C103KBQ
R644 22K/J2
C621 ECUW1C103KBQ
R643 PAT/J2
R642 0/J2
C620 ECUW1C103KBQ
R641 PAT/J2
R640 0/J2
R639 33K/J2
R648 ERJ2RMJ101Y
R649 ERJ2RMJ101Y
R650 ERJ2RMJ101Y
(CONTROL) E_SUB_B
(CONTROL) E_SUB_R
(CONTROL) E_CONTRAST
(CONTROL) E_COLOR
(CONTROL) E_BRIGHT
(CONTROL) E_GAMMA1

COMPONENT NAME	VTR MAIN (LCD)		04/08
CIRCUIT BOARD NO.		DRAWING NO.	
VEP03E35		KR30115	
		SCM004	

es.

8 9 10 11 12 13 14 15


TO_CAMERA
PS3001
VJS3846C030
TO_POWER
PS1001
VJS3846C080
TO_DRIVE
PP2001
VJP3989C050
TO_SP
P3001
VJP3172D002
TO_TOP-OP
FP6001
VJS3319D014
TO_REAR-OP
FP6002
VJS3319D016
TO_MIC
FP4001
VJS3319D013
TO_CAMERA
PS3002
VJS3846C080
SOUND_TITLE
AUDIO
CONTROL
IC6501
TC7W241FUTL
IC6502
TC7W241FUTL
IC6503
TC7W241FUTL
IC6505
TC7SH08FUTL
IC6506
TC7SH08FUTL
D6501
MA132WA-TX
D6502
MA132WA-TX
D6503
MA132WA-TX
D6504
MA132WA-TX
D6505
MA132A-TX
D6506
MA132WA-TX
L6501
VLQ0807K100
L6502
VLQ0807K220
F6503
63V T800mA
K5H803300001
Q6501
2SB1073-TX
C6501
0.1/10V
1
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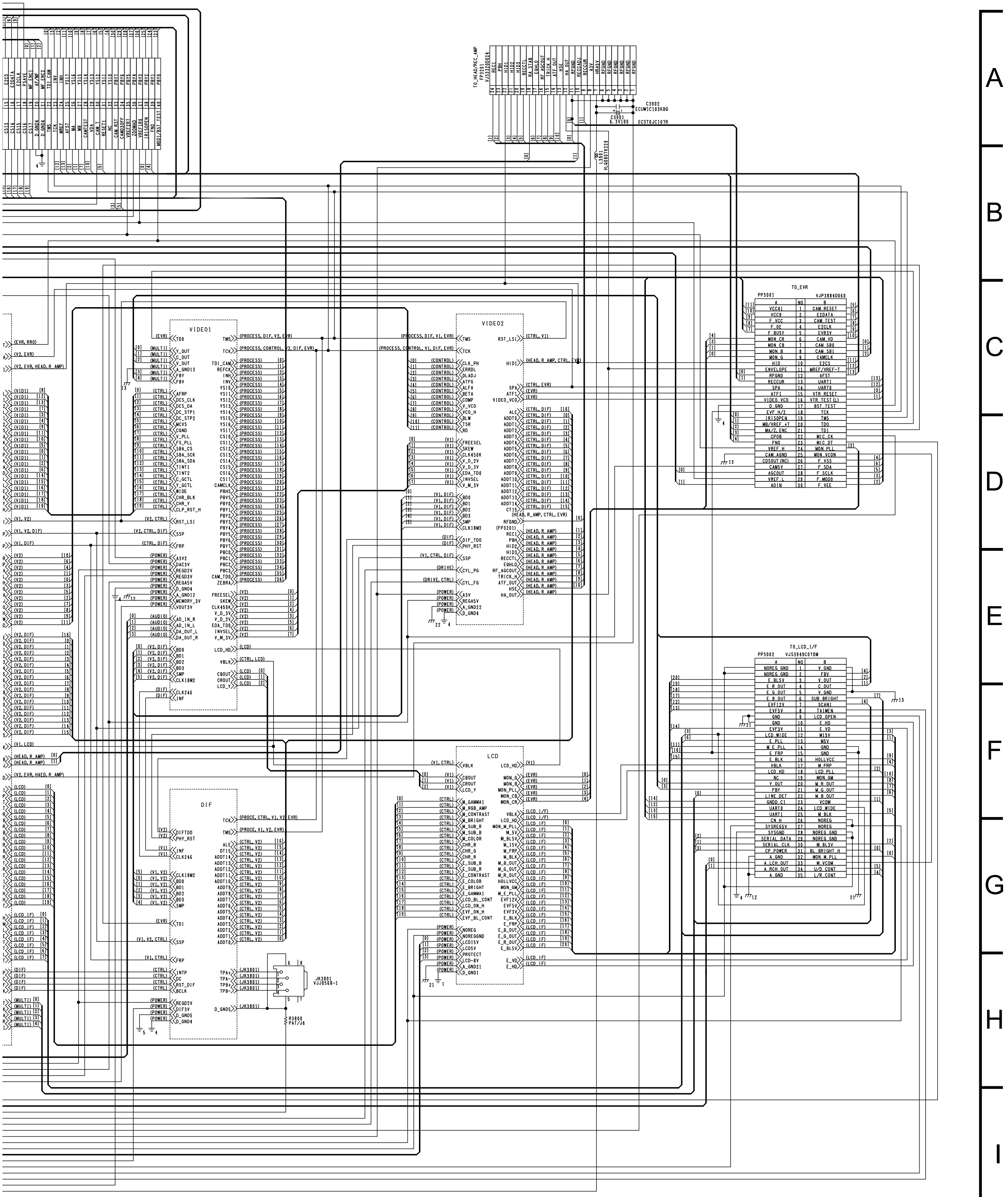
VIDEO1
VIDEO2
DIF
LCD
TO_EVR
PP3001
VJP3884D060
TO_LCD_I/F
PP3002
VJS3949C070M
TO_HEAD/REC_AMP
FP3201
VJS3330D024
C3902
ECUW1C103KBQ
C3901
6.3V100
ECST0JC107R
L3901
VLQ0801X220
JK3801
VJJ0568-1
R3800
PAT/J6
A
B
C
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E
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G
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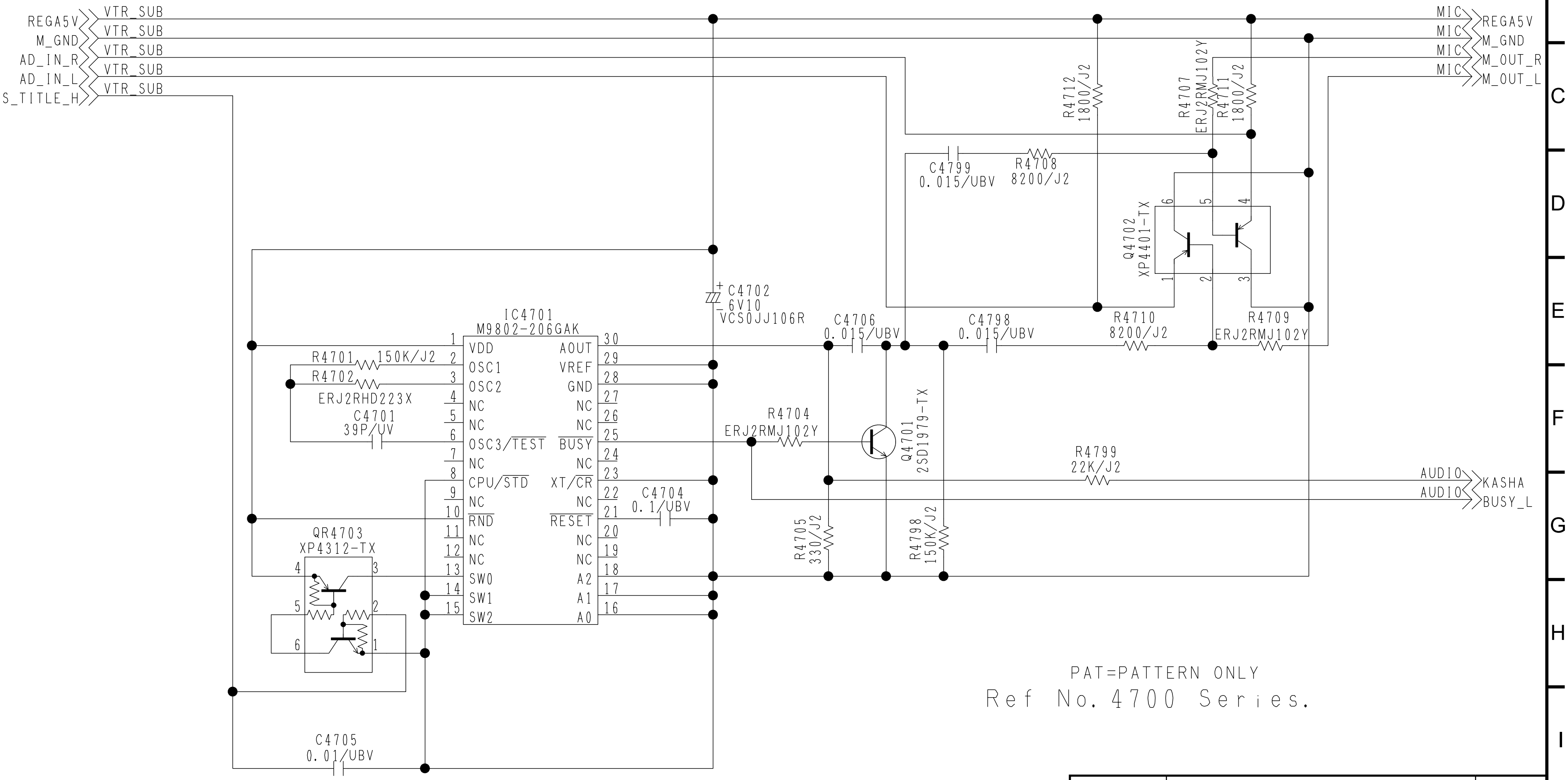
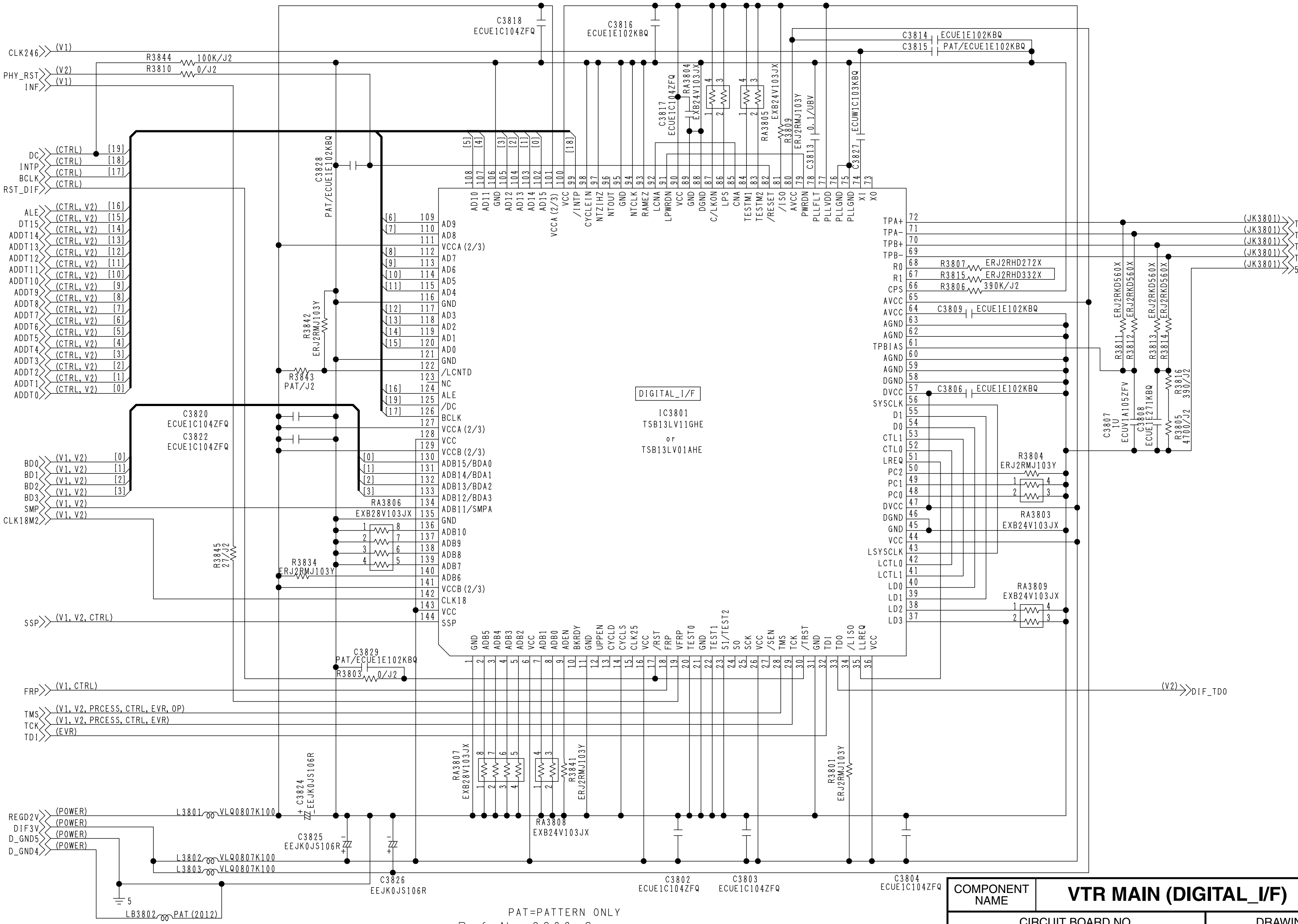
COMPONENT NAME	VTR MAIN (LCD)	05/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP03E35	KR30115	
	SCM005	


REGA5V
M_GND
AD_IN_R
AD_IN_L
S_TITLE_H
VTR_SUB
VTR_SUB
VTR_SUB
VTR_SUB
VTR_SUB
MIC REGA5V
MIC M_GND
MIC M_OUT_R
MIC M_OUT_L
R4712 1800/J2
R4707 ERJ2RMJ102Y
R4711 1800/J2
C4799 0.015/UBV
R4708 8200/J2
Q4702 XP4401-TX
6 5 4
1 2 3
C4702 6V10 VCS0JJ106R
IC4701 M9802-206GAK
1 VDD
2 OSC1
3 OSC2
4 NC
5 NC
6 OSC3/TEST
7 NC
8 CPU/STD
9 NC
10 RND
11 NC
12 NC
13 SW0
14 SW1
15 SW2
30 AOUT
29 VREF
28 GND
27 NC
26 NC
25 BUSY
24 NC
23 XT/CR
22 NC
21 RESET
20 NC
19 NC
18 A2
17 A1
16 A0
R4701 150K/J2
R4702 ERJ2RHD223X
C4701 39P/UV
C4706 0.015/UBV
C4798 0.015/UBV
R4710 8200/J2
R4709 ERJ2RMJ102Y
R4704 ERJ2RMJ102Y
Q4701 2SD1979-TX
R4799 22K/J2
AUDIO KASHA
AUDIO BUSY_L
C4704 0.1/UBV
R4705 330/J2
R4798 150K/J2
QR4703 XP4312-TX
4 3 5 2 6 1
C4705 0.01/UBV
A B C D E F G H I J
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

PAT=PATTERN ONLY

Ref No.4700 Series.

COMPONENT NAME	**VTR MAIN (SOUND TITLE)**	06/08
CIRCUIT BOARD NO.		DRAWING NO.
VEP03E35		KR30115
		SCM006


CLK246 (V1)
PHY_RST (V2)
INF (V1)
R3844 100K/J2
R3810 0/J2
C3818 ECUE1C104ZFQ
C3816 ECUE1E102KBQ
C3814 ECUE1E102KBQ
C3815 PAT/ECUE1E102KBQ
C3817 ECUE1C104ZFQ
RA3804 EXB24V103JX
RA3805 EXB24V103JX
R3809 ERJ2RMJ103Y
C3813 0.1/UBV
C3827 ECUW1C103KBQ
C3828 PAT/ECUE1E102KBQ
DC (CTRL) [19]
INTP (CTRL) [18]
BCLK (CTRL) [17]
RST_DIF (CTRL)
ALE (CTRL, V2) [16]
DT15 (CTRL, V2) [15]
ADDT14 (CTRL, V2) [14]
ADDT13 (CTRL, V2) [13]
ADDT12 (CTRL, V2) [12]
ADDT11 (CTRL, V2) [11]
ADDT10 (CTRL, V2) [10]
ADDT9 (CTRL, V2) [9]
ADDT8 (CTRL, V2) [8]
ADDT7 (CTRL, V2) [7]
ADDT6 (CTRL, V2) [6]
ADDT5 (CTRL, V2) [5]
ADDT4 (CTRL, V2) [4]
ADDT3 (CTRL, V2) [3]
ADDT2 (CTRL, V2) [2]
ADDT1 (CTRL, V2) [1]
ADDT0 (CTRL, V2) [0]
R3842 ERJ2RMJ103Y
R3843 PAT/J2
C3820 ECUE1C104ZFQ
C3822 ECUE1C104ZFQ
BD0 (V1, V2) [0]
BD1 (V1, V2) [1]
BD2 (V1, V2) [2]
BD3 (V1, V2) [3]
SMP (V1, V2)
CLK18M2 (V1, V2)
RA3806 EXB28V103JX
R3845 27/J2
R3834 ERJ2RMJ103Y
SSP (V1, V2, CTRL)
C3829 PAT/ECUE1E102KBQ
R3803 0/J2
FRP (V1, CTRL)
TMS (V1, V2, PRCESS, CTRL, EVR, OP)
TCK (V1, V2, PRCESS, CTRL, EVR)
TDI (EVR)
DIGITAL_I/F
IC3801
TSB13LV11GHE
or
TSB13LV01AHE
108 AD10
107 AD11
106 GND
105 AD12
104 AD13
103 AD14
102 AD15
101 VCCA (2/3)
100 VCC
99 /INTP
98 CYCLEIN
97 NTZIHZ
96 NTOUT
95 GND
94 NTCLK
93 RAMEZ
92 LCNA
91 LPWRDN
90 VCC
89 GND
88 DGND
87 C/LKON
86 LPS
85 CNA
84 TESTM1
83 TESTM2
82 /RESET
81 /ISO
80 AVCC
79 PWRDN
78 PLLFLT
77 PLLVDD
76 PLLGND
75 PLLGND
74 XI
73 XO
109 AD9
110 AD8
111 VCCA (2/3)
112 AD7
113 AD6
114 AD5
115 AD4
116 GND
117 AD3
118 AD2
119 AD1
120 AD0
121 GND
122 /LCNTD
123 NC
124 ALE
125 /DC
126 BCLK
127 VCCA (2/3)
128 VCC
129 VCCB (2/3)
130 ADB15/BDA0
131 ADB14/BDA1
132 ADB13/BDA2
133 ADB12/BDA3
134 ADB11/SMPA
135 GND
136 ADB10
137 ADB9
138 ADB8
139 ADB7
140 ADB6
141 VCCB (2/3)
142 CLK18
143 VCC
144 SSP
1 GND
2 ADB5
3 ADB4
4 ADB3
5 ADB2
6 VCC
7 ADB1
8 ADB0
9 ADEN
10 BKRDY
11 GND
12 UPPEN
13 CYCLD
14 CYCLS
15 CLK25
16 VCC
17 /RST
18 FRP
19 VFRP
20 TEST0
21 GND
22 TEST1
23 S1/TEST2
24 SO
25 SCK
26 VCC
27 /SEN
28 TMS
29 TCK
30 /TRST
31 GND
32 TDI
33 TDO
34 /LISO
35 LREQ
36 VCC
72 TPA+
71 TPA-
70 TPB+
69 TPB-
68 R0
67 R1
66 CPS
65 AVCC
64 AVCC
63 AGND
62 AGND
61 TPBIAS
60 AGND
59 AGND
58 DGND
57 DVCC
56 SYSCLK
55 D1
54 D0
53 CTL1
52 CTL0
51 LREQ
50 PC2
49 PC1
48 PC0
47 DVCC
46 DGND
45 GND
44 VCC
43 LSYSCLK
42 LCTL0
41 LCTL1
40 LD0
39 LD1
38 LD2
37 LD3
R3807 ERJ2RHD272X
R3815 ERJ2RHD332X
R3806 390K/J2
C3809 ECUE1E102KBQ
C3806 ECUE1E102KBQ
(JK3801) TPA+
(JK3801) TPA-
(JK3801) TPB+
(JK3801) TPB-
(JK3801) 5
R3811 ERJ2RKD560X
R3812 ERJ2RKD560X
R3813 ERJ2RKD560X
R3814 ERJ2RKD560X
R3816 390/J2
C3807 1U ECUV1A105ZFV
C3808 ECUE1E271KBQ
R3805 4700/J2
R3804 ERJ2RMJ103Y
RA3803 EXB24V103JX
RA3809 EXB24V103JX
(V2) DIF_TD0
RA3807 EXB28V103JX
RA3808 EXB24V103JX
R3841 ERJ2RMJ103Y
R3801 ERJ2RMJ103Y
C3824 EEJK0JS106R
REGD2V (POWER)
DIF3V (POWER)
D_GND5 (POWER)
D_GND4 (POWER)
L3801 VLQ0807K100
L3802 VLQ0807K100
L3803 VLQ0807K100
C3825 EEJK0JS106R
C3826 EEJK0JS106R
C3802 ECUE1C104ZFQ
C3803 ECUE1C104ZFQ
C3804 ECUE1C104ZFQ
LB3802 PAT (2012)
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A
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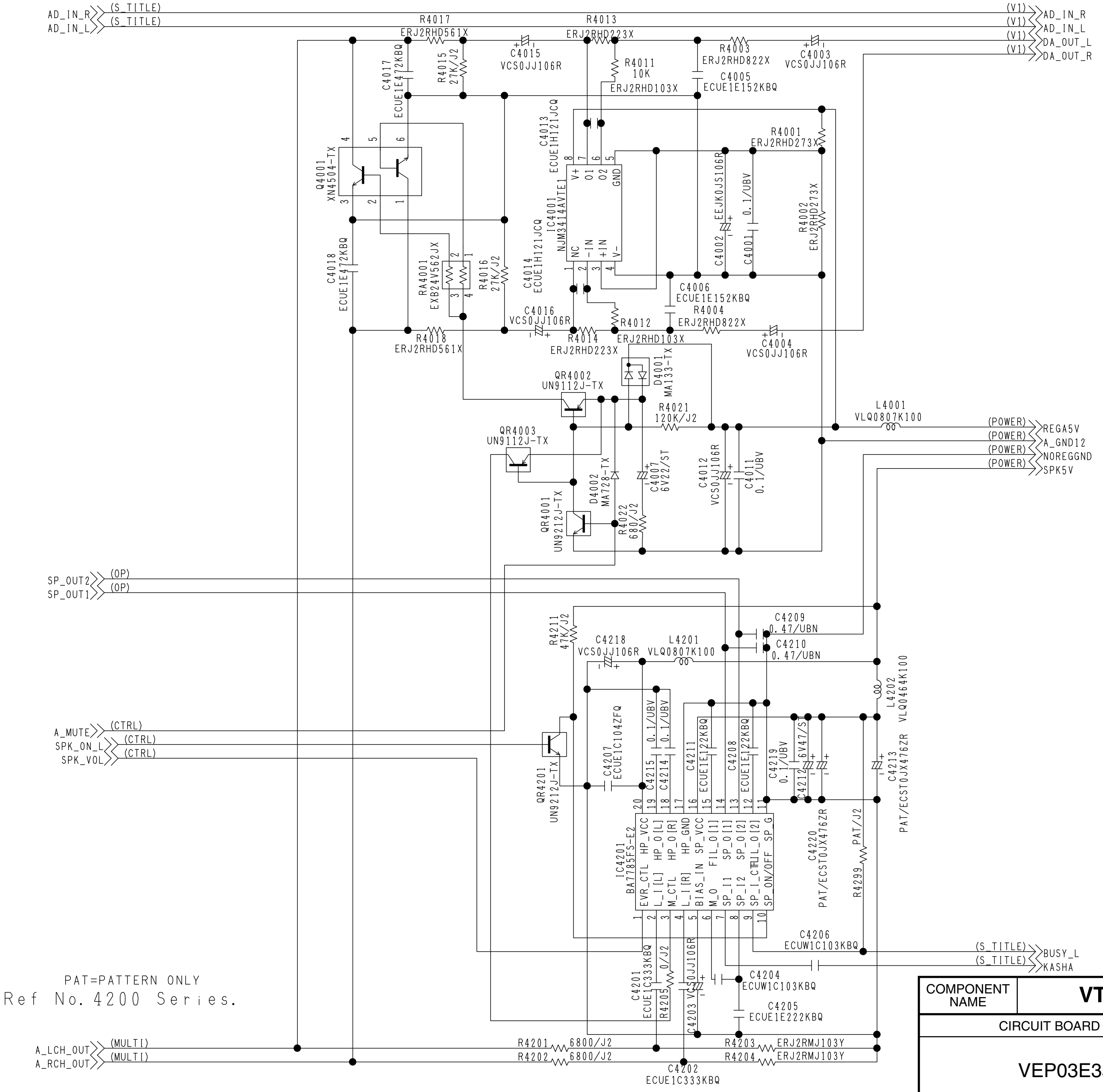
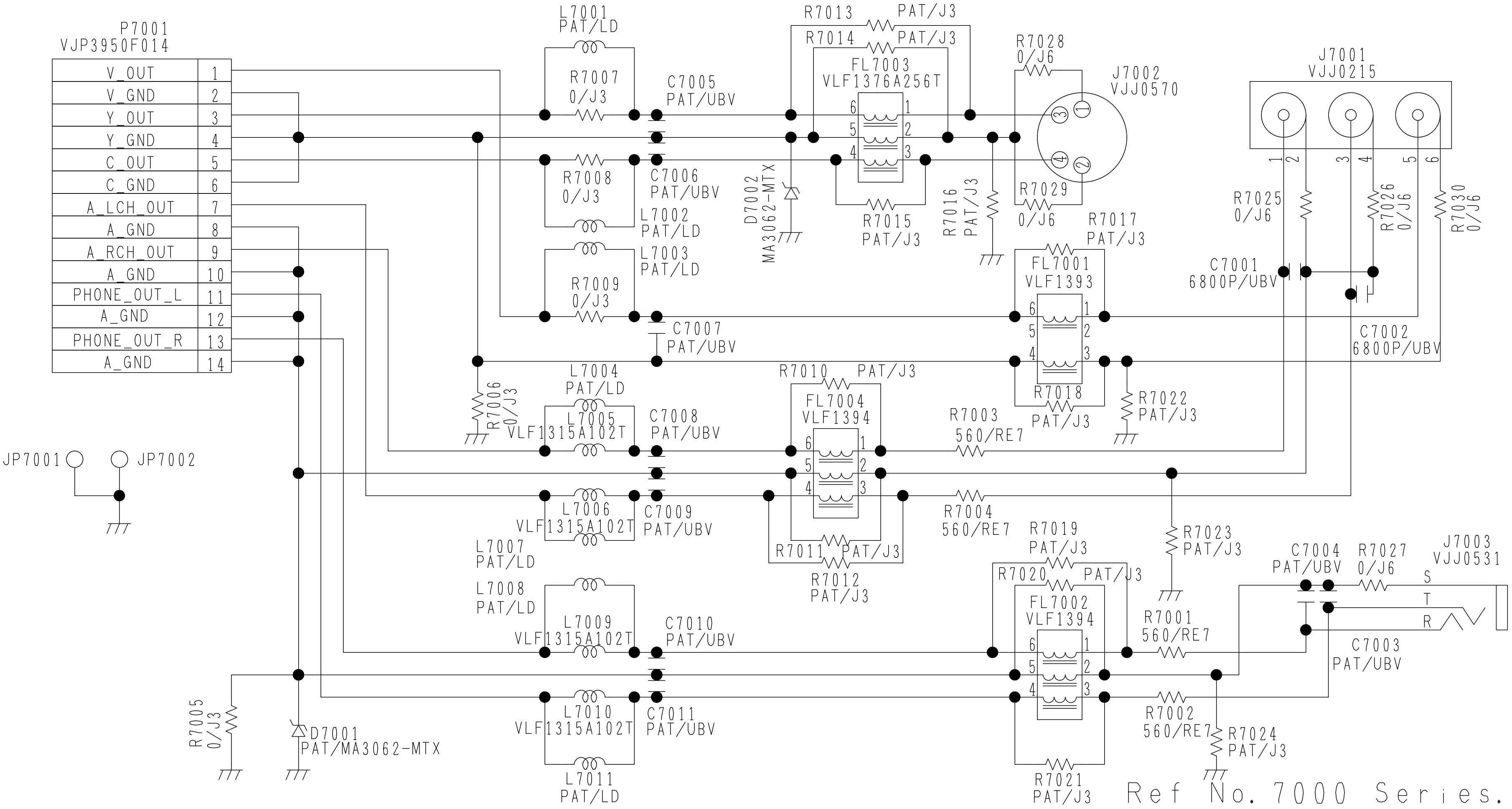
PAT=PATTERN ONLY

Ref No. 3800 Series.

COMPONENT NAME	VTR MAIN (DIGITAL_I/F)	07/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP03E35	KR30115	
	SCM007	


AD_IN_R (S_TITLE)
AD_IN_L (S_TITLE)
(V1) AD_IN_R
(V1) AD_IN_L
(V1) DA_OUT_L
(V1) DA_OUT_R
R4017 ERJ2RHD561X
R4013 ERJ2RHD223X
C4015 VCS0JJ106R
R4003 ERJ2RHD822X
C4003 VCS0JJ106R
R4011 10K ERJ2RHD103X
C4005 ECUE1E152KBQ
C4017 ECUE1E472KBQ
R4015 27K/J2
C4013 ECUE1H121JCQ
R4001 ERJ2RHD273X
IC4001 NJM3414AVTE1
V+ O1 O2 GND
NC -IN +IN V-
C4002 EEJK0JS106R
C4001 0.1/UBV
R4002 ERJ2RHD273X
Q4001 XN4504-TX
C4018 ECUE1E472KBQ
RA4001 EXB24V562JX
R4016 27K/J2
C4014 ECUE1H121JCQ
C4006 ECUE1E152KBQ
R4004 ERJ2RHD822X
C4016 VCS0JJ106R
R4012 ERJ2RHD103X
R4018 ERJ2RHD561X
R4014 ERJ2RHD223X
C4004 VCS0JJ106R
QR4002 UN9112J-TX
D4001 MA133-TX
R4021 120K/J2
L4001 VLQ0807K100
(POWER) REGA5V
(POWER) A_GND12
(POWER) NOREGGND
(POWER) SPK5V
QR4003 UN9112J-TX
D4002 MA728-TX
C4007 6V22/ST
C4012 VCS0JJ106R
C4011 0.1/UBV
QR4001 UN9212J-TX
R4022 680/J2
SP_OUT2 (OP)
SP_OUT1 (OP)
R4211 47K/J2
C4218 VCS0JJ106R
L4201 VLQ0807K100
C4209 0.47/UBN
C4210 0.47/UBN
L4202 VLQ0464K100
A_MUTE (CTRL)
SPK_ON_L (CTRL)
SPK_VOL (CTRL)
QR4201 UN9212J-TX
C4207 ECUE1C104ZFQ
C4215 0.1/UBV
C4214 0.1/UBV
C4211 ECUE1E122KBQ
C4208 ECUE1E122KBQ
C4219 0.1/UBV
C4212 6V47/ST
C4213 PAT/ECST0JX476ZR
IC4201 BA7785FS-E2
EVR_CTL HP_VCC
L_I[L] HP_O[L]
M_CTL HP_O[R]
L_I[R] HP_GND
BIAS_IN SP_VCC
M_O FIL_O[1]
SP_I1 SP_O[1]
SP_I2 SP_O[2]
SP_I_CTL FIL_O[2]
SP_ON/OFF SP_G
C4220 PAT/ECST0JX476ZR
R4299 PAT/J2
C4206 ECUW1C103KBQ
(S_TITLE) BUSY_L
(S_TITLE) KASHA
C4201 ECUE1C333KBQ
R4205 0/J2
C4203 VCS0JJ106R
C4204 ECUW1C103KBQ
C4205 ECUE1E222KBQ
A_LCH_OUT (MULTI)
A_RCH_OUT (MULTI)
R4201 6800/J2
R4202 6800/J2
R4203 ERJ2RMJ103Y
R4204 ERJ2RMJ103Y
C4202 ECUE1C333KBQ
PAT=PATTERN ONLY
Ref No.4200 Series.
A B C D E F G H I J
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

COMPONENT NAME	VTR MAIN (AUDIO)	08/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP03E35	KR30115	
	SCM008	


P7001
VJP3950F014
V_OUT 1
V_GND 2
Y_OUT 3
Y_GND 4
C_OUT 5
C_GND 6
A_LCH_OUT 7
A_GND 8
A_RCH_OUT 9
A_GND 10
PHONE_OUT_L 11
A_GND 12
PHONE_OUT_R 13
A_GND 14
L7001
PAT/LD
R7007
0/J3
C7005
PAT/UBV
R7008
0/J3
C7006
PAT/UBV
L7002
PAT/LD
L7003
PAT/LD
R7009
0/J3
C7007
PAT/UBV
R7013 PAT/J3
R7014 PAT/J3
FL7003
VLF1376A256T
D7002
MA3062-MTX
R7015
PAT/J3
R7016
PAT/J3
R7028
0/J6
J7002
VJJ0570
R7029
0/J6
R7017
PAT/J3
FL7001
VLF1393
R7018
PAT/J3
R7022
PAT/J3
J7001
VJJ0215
R7025
0/J6
R7026
0/J6
R7030
0/J6
C7001
6800P/UBV
C7002
6800P/UBV
R7006
0/J3
L7004
PAT/LD
L7005
VLF1315A102T
C7008
PAT/UBV
R7010 PAT/J3
FL7004
VLF1394
R7003
560/RE7
R7004
560/RE7
L7006
VLF1315A102T
C7009
PAT/UBV
R7011 PAT/J3
R7012
PAT/J3
R7023
PAT/J3
JP7001
JP7002
L7007
PAT/LD
L7008
PAT/LD
L7009
VLF1315A102T
C7010
PAT/UBV
R7019
PAT/J3
R7020 PAT/J3
FL7002
VLF1394
R7001
560/RE7
C7004
PAT/UBV
R7027
0/J6
J7003
VJJ0531
S
T
R
C7003
PAT/UBV
R7005
0/J3
D7001
PAT/MA3062-MTX
L7010
VLF1315A102T
C7011
PAT/UBV
L7011
PAT/LD
R7002
560/RE7
R7024
PAT/J3
R7021
PAT/J3
Ref No. 7000 Series.
A
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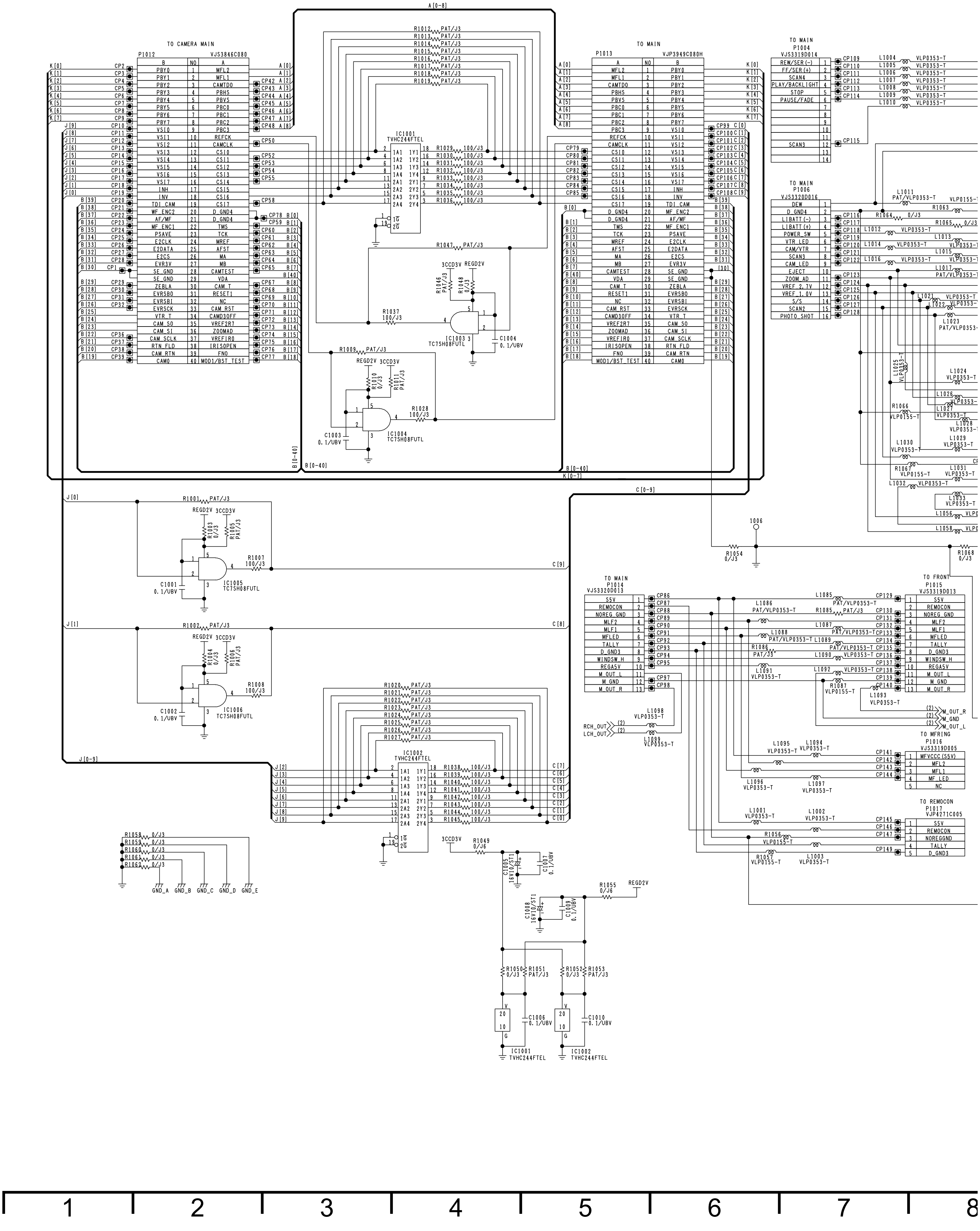
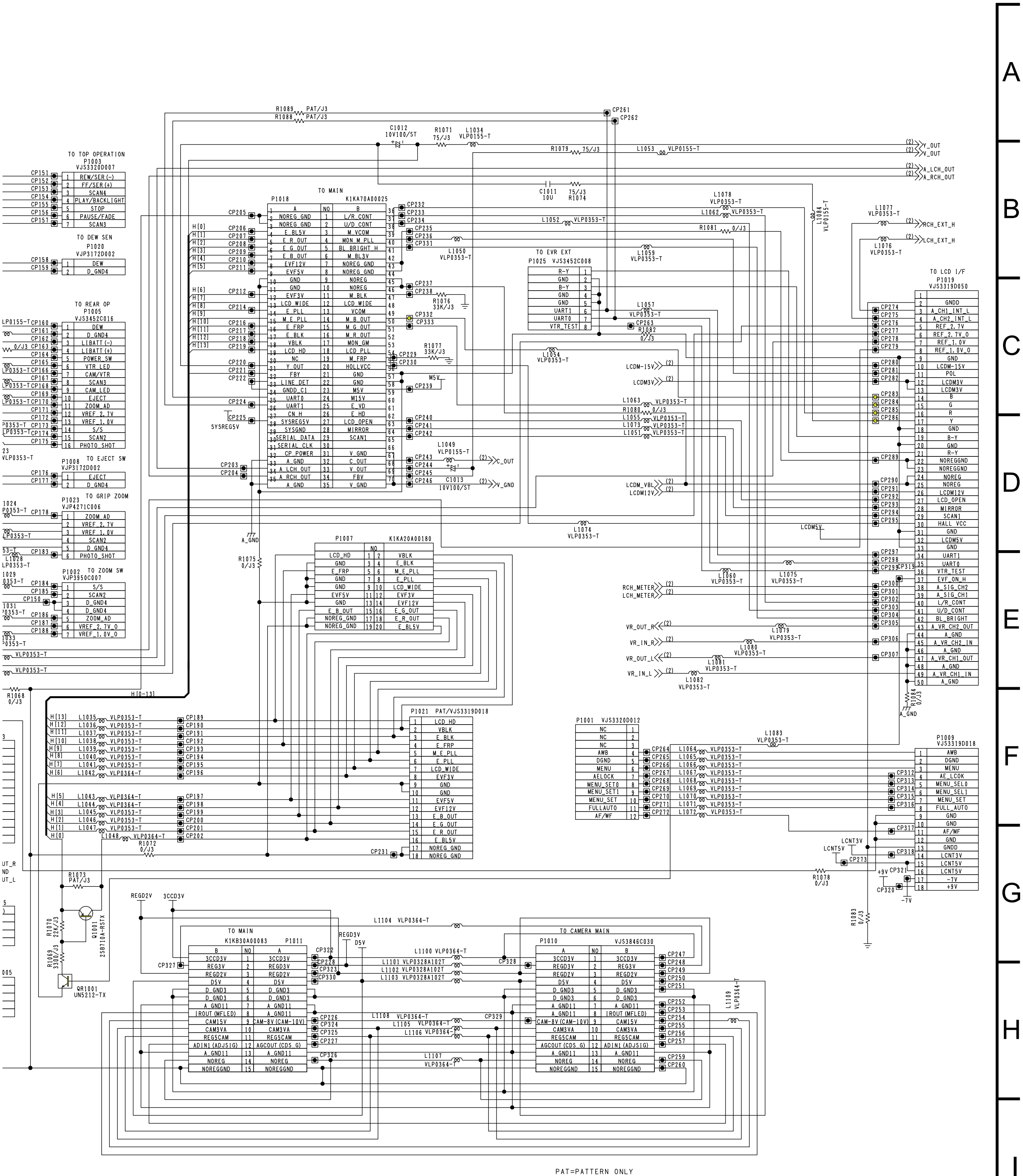
COMPONENT NAME	**JACK**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP04778	KR4K22	
	SCM009	


A[0-8]
TO CAMERA MAIN
P1012
VJS3846C080
TO MAIN
P1013
VJP3949C080H
TO MAIN
P1004
VJS3319D014
REW/SER(-)
FF/SER(+)
SCAN4
PLAY/BACKLIGHT
STOP
PAUSE/FADE
SCAN3
TO MAIN
P1006
VJS3320D016
DEW
D_GND4
LIBATT(-)
LIBATT(+)
POWER_SW
VTR_LED
CAM/VTR
SCAN3
CAM_LED
EJECT
ZOOM_AD
VREF_2.7V
VREF_1.0V
S/S
SCAN2
PHOTO_SHOT
IC1001
TVHC244FTEL
R1029 100/J3
R1030 100/J3
R1031 100/J3
R1032 100/J3
R1033 100/J3
R1034 100/J3
R1035 100/J3
R1036 100/J3
R1012 PAT/J3
R1013 PAT/J3
R1014 PAT/J3
R1015 PAT/J3
R1016 PAT/J3
R1017 PAT/J3
R1018 PAT/J3
R1019 PAT/J3
R1047 PAT/J3
3CCD3V
REGD2V
R1046 PAT/J3
R1048 0/J3
R1037 100/J3
IC1003
TC7SH08FUTL
C1004 0.1/UBV
R1009 PAT/J3
R1010 0/J3
R1011 PAT/J3
R1028 100/J3
C1003 0.1/UBV
IC1004
TC7SH08FUTL
B[0-40]
K[0-7]
C[0-9]
J[0]
R1001 PAT/J3
R1003 0/J3
R1005 PAT/J3
R1007 100/J3
C1001 0.1/UBV
IC1005
TC7SH08FUTL
J[1]
R1002 PAT/J3
R1004 0/J3
R1006 PAT/J3
R1008 100/J3
C1002 0.1/UBV
IC1006
TC7SH08FUTL
J[0-9]
R1020 PAT/J3
R1021 PAT/J3
R1022 PAT/J3
R1023 PAT/J3
R1024 PAT/J3
R1025 PAT/J3
R1026 PAT/J3
R1027 PAT/J3
IC1002
TVHC244FTEL
R1038 100/J3
R1039 100/J3
R1040 100/J3
R1041 100/J3
R1042 100/J3
R1043 100/J3
R1044 100/J3
R1045 100/J3
R1058 0/J3
R1059 0/J3
R1060 0/J3
R1061 0/J3
R1062 0/J3
GND_A
GND_B
GND_C
GND_D
GND_E
3CCD3V
R1049 0/J6
C1005 16V10/ST1
C1007 0.1/UBV
R1055 0/J6
REGD2V
C1008 16V10/ST1
C1009 0.1/UBV
R1050 0/J3
R1051 PAT/J3
R1052 0/J3
R1053 PAT/J3
C1006 0.1/UBV
C1010 0.1/UBV
IC1001
TVHC244FTEL
IC1002
TVHC244FTEL
1006
R1054 0/J3
R1068 0/J3
TO MAIN
P1014
VJS3320D013
S5V
REMOCON
NOREG_GND
MLF2
MLF1
MFLED
TALLY
D_GND3
WINDSW_H
REGA5V
M_OUT_L
M_GND
M_OUT_R
TO FRONT
P1015
VJS3319D013
RCH_OUT
LCH_OUT
L1098 VLP0353-T
L1099 VLP0353-T
TO MFRING
P1016
VJS3319D005
MFVCCC(S5V)
MF_LED
NC
TO REMOCON
P1017
VJP4271C005
NOREGGND
D_GND3
1
2
3
4
5
6
7
8

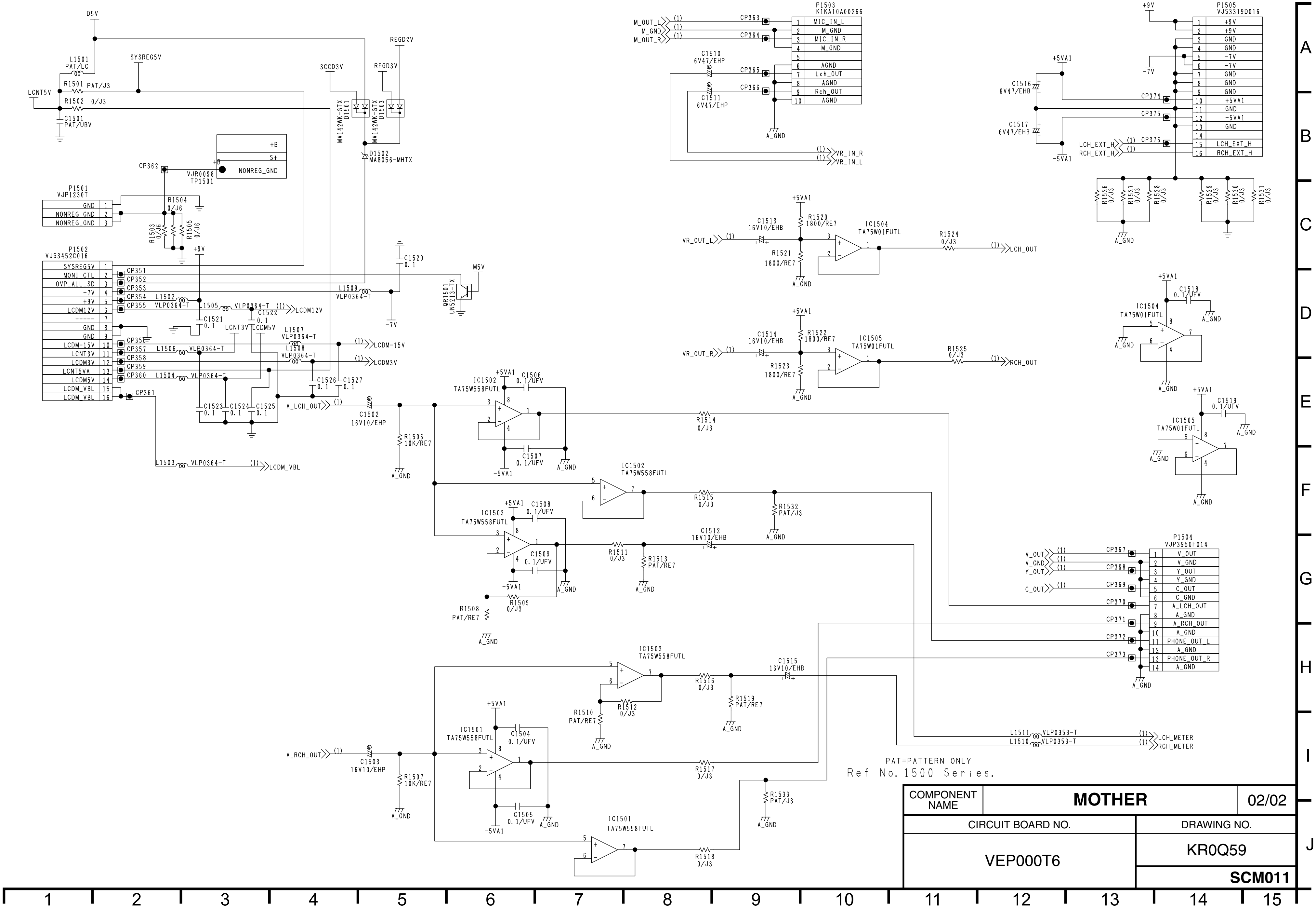

A
B
C
D
E
F
G
H
I
TO TOP OPERATION
P1003
VJS3320D007
TO DEW SEN
P1020
VJP3172D002
TO REAR OP
P1005
VJS3452C016
TO EJECT SW
P1008
VJP3172D002
TO GRIP ZOOM
P1023
VJP4271C006
TO ZOOM SW
P1002
VJP3950C007
TO MAIN
P1018
K1KA70A00025
P1007
K1KA20A00180
P1021 PAT/VJS3319D018
TO EVR EXT
P1025 VJS3452C008
TO LCD I/F
P1019
VJS3319D050
P1001 VJS3320D012
P1009
VJS3319D018
TO MAIN
K1KB30A00083
P1011
TO CAMERA MAIN
P1010
VJS3846C030
Q1001
2SB710A-RSTX
QR1001
UN5212-TX
H[0-13]
V_OUT
A_LCH_OUT
A_RCH_OUT
RCH_EXT_H
LCH_EXT_H
C_OUT
V_GND
REGD2V
3CCD3V
REGD3V
D5V

PAT=PATTERN ONLY
Ref No.1000 Series.

COMPONENT NAME	MOTHER	01/02
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000T6	KR0Q59	
	SCM010	

J

8 9 10 11 12 13 14 15



D5V
L1501 PAT/LC
SYSREG5V
R1501 PAT/J3
LCNT5V
R1502 0/J3
C1501 PAT/UBV
3CCD3V
REGD3V
REGD2V
MA142WK-GTX D1501
MA142WK-GTX D1503
D1502 MA8056-MHTX
CP362
+B
S+
NONREG_GND
VJR0098 TP1501
P1501 VJP1230T
GND 1
NONREG_GND 2
NONREG_GND 3
R1504 0/J6
R1503 0/J6
R1505 0/J6
+9V
P1502 VJS3452C016
SYSREG5V 1
MONI_CTL 2
OVP_ALL_SD 3
-7V 4
+9V 5
LCDM12V 6
------ 7
GND 8
GND 9
LCDM-15V 10
LCNT3V 11
LCDM3V 12
LCNT5VA 13
LCDM5V 14
LCDM_VBL 15
LCDM_VBL 16
CP351
CP352
CP353
CP354
CP355
CP356
CP357
CP358
CP359
CP360
CP361
L1502 VLP0364-T
L1505 VLP0364-T
(1) LCDM12V
L1509 VLP0364-T
C1520 0.1
M5V
QR1501 UN5213-TX
-7V
C1521 0.1
C1522 0.1
LCNT3V
LCDM5V
L1507 VLP0364-T
L1506 VLP0364-T
(1) LCDM-15V
L1508 VLP0364-T
(1) LCDM3V
L1504 VLP0364-T
C1526 0.1
C1527 0.1
C1523 0.1
C1524 0.1
C1525 0.1
L1503 VLP0364-T
(1) LCDM_VBL
M_OUT_L (1)
M_GND (1)
M_OUT_R (1)
CP363
CP364
CP365
CP366
P1503 K1KA10A00266
1 MIC_IN_L
2 M_GND
3 MIC_IN_R
4 M_GND
5
6 AGND
7 Lch_OUT
8 AGND
9 Rch_OUT
10 AGND
C1510 6V47/EHP
C1511 6V47/EHP
A_GND
(1) VR_IN_R
(1) VR_IN_L
+9V
P1505 VJS3319D016
1 +9V
2 +9V
3 GND
4 GND
5 -7V
6 -7V
7 GND
8 GND
9 GND
10 +5VA1
11 GND
12 -5VA1
13 GND
14
15 LCH_EXT_H
16 RCH_EXT_H
+5VA1
-7V
C1516 6V47/EHB
C1517 6V47/EHB
-5VA1
CP374
CP375
CP376
LCH_EXT_H (1)
RCH_EXT_H (1)
R1526 0/J3
R1527 0/J3
R1528 0/J3
R1529 0/J3
R1530 0/J3
R1531 0/J3
+5VA1
C1513 16V10/EHB
R1520 1800/RE7
IC1504 TA75W01FUTL
VR_OUT_L (1)
R1521 1800/RE7
R1524 0/J3
(1) LCH_OUT
C1514 16V10/EHB
R1522 1800/RE7
IC1505 TA75W01FUTL
VR_OUT_R (1)
R1523 1800/RE7
R1525 0/J3
(1) RCH_OUT
C1518 0.1/UFV
IC1504 TA75W01FUTL
C1519 0.1/UFV
IC1505 TA75W01FUTL
IC1502 TA75W558FUTL
C1506 0.1/UFV
A_LCH_OUT (1)
C1502 16V10/EHP
R1506 10K/RE7
C1507 0.1/UFV
-5VA1
R1514 0/J3
R1515 0/J3
R1532 PAT/J3
IC1503 TA75W558FUTL
C1508 0.1/UFV
C1509 0.1/UFV
R1511 0/J3
R1513 PAT/RE7
C1512 16V10/EHB
R1508 PAT/RE7
R1509 0/J3
P1504 VJP3950F014
V_OUT (1)
V_GND (1)
Y_OUT (1)
C_OUT (1)
CP367
CP368
CP369
CP370
CP371
CP372
CP373
1 V_OUT
2 V_GND
3 Y_OUT
4 Y_GND
5 C_OUT
6 C_GND
7 A_LCH_OUT
8 A_GND
9 A_RCH_OUT
10 A_GND
11 PHONE_OUT_L
12 A_GND
13 PHONE_OUT_R
14 A_GND
IC1503 TA75W558FUTL
R1516 0/J3
C1515 16V10/EHB
R1519 PAT/RE7
R1510 PAT/RE7
R1512 0/J3
IC1501 TA75W558FUTL
C1504 0.1/UFV
A_RCH_OUT (1)
C1503 16V10/EHP
R1507 10K/RE7
C1505 0.1/UFV
R1517 0/J3
R1533 PAT/J3
IC1501 TA75W558FUTL
R1518 0/J3
L1511 VLP0353-T
(1) LCH_METER
L1510 VLP0353-T
(1) RCH_METER
PAT=PATTERN ONLY
Ref No.1500 Series.
A
B
C
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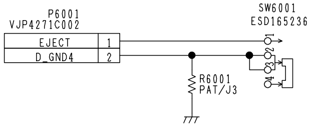
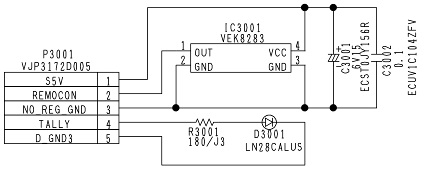
15

COMPONENT NAME	MOTHER	02/02
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000T6	KR0Q59	
	SCM011	


P6001
VJP4271C002
EJECT 1
D_GND4 2
SW6001
ESD165236
1
2
3
4
R6001
PAT/J3

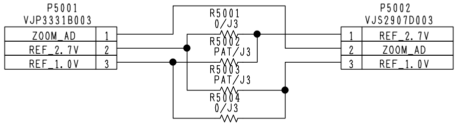
Ref No. 5500 Series.

COMPONENT NAME	**EJECT**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000R1	KR0P78 **SCM012**	


P3001
VJP3172D005
S5V 1
REMOCON 2
NO_REG_GND 3
TALLY 4
D_GND3 5
IC3001
VEK8283
1 OUT
2 GND
VCC 4
GND 3
C3001
6V15
ECST0JY156R
C3002
0.1
ECUV1C104ZFV
R3001
180/J3
D3001
LN28CALUS

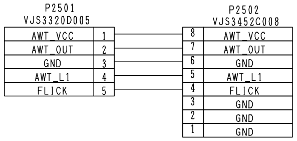
Ref No. 3000 Series.

COMPONENT NAME	**REMOCON**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000R3	KR0Q59 **SCM012**	


P5001
VJP3331B003
ZOOM_AD 1
REF_2.7V 2
REF_1.0V 3
R5001
0/J3
R5002
PAT/J3
R5003
PAT/J3
R5004
0/J3
P5002
VJS2907D003
1 REF_2.7V
2 ZOOM_AD
3 REF_1.0V

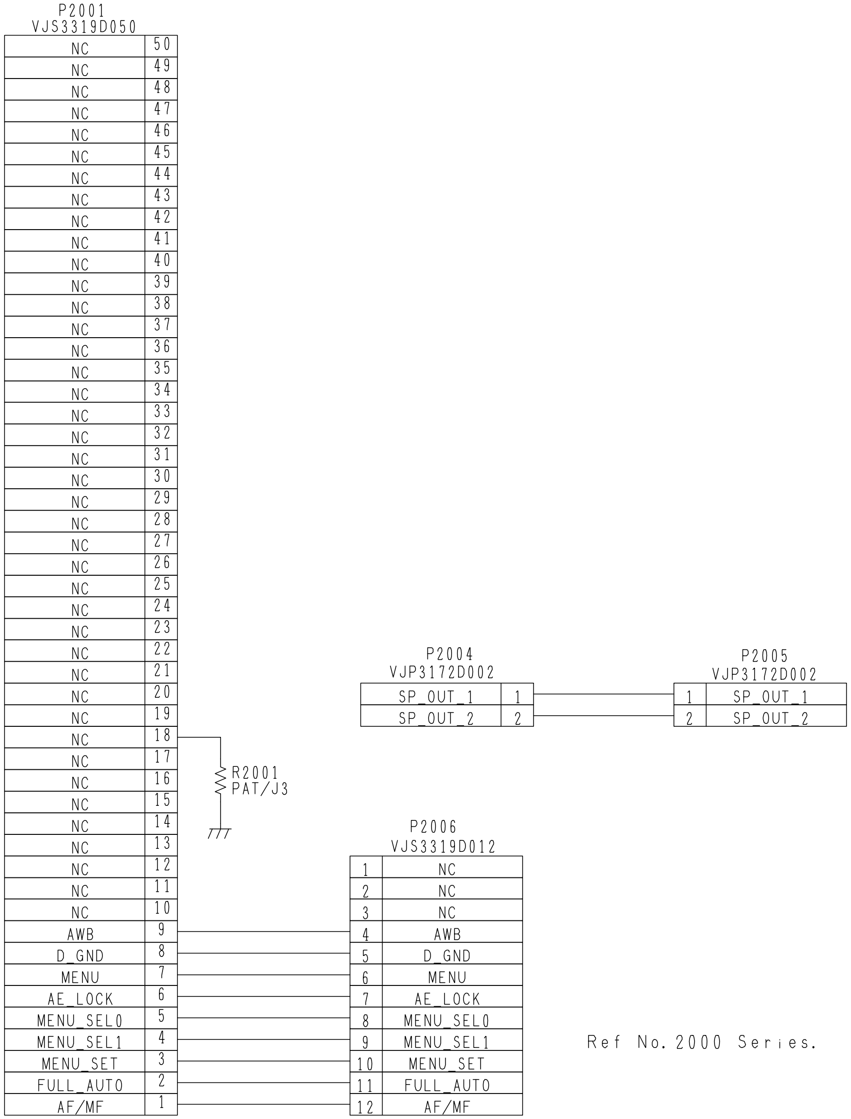
Ref No. 5000 Series.

COMPONENT NAME	**ZOOM_SW**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000R4	KR0P81 **SCM012**	


P2501
VJS3320D005
AWT_VCC 1
AWT_OUT 2
GND 3
AWT_L1 4
FLICK 5
P2502
VJS3452C008
8 AWT_VCC
7 AWT_OUT
6 GND
5 AWT_L1
4 FLICK
3 GND
2 GND
1 GND

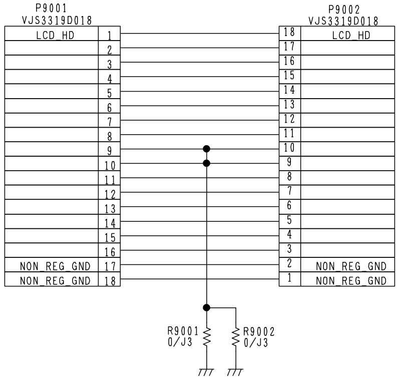
Ref No. 2500 Series.

COMPONENT NAME	**AWT**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000R5	KR0P82 **SCM012**	


P2001
VJS3319D050
NC 50
NC 49
NC 48
NC 47
NC 46
NC 45
NC 44
NC 43
NC 42
NC 41
NC 40
NC 39
NC 38
NC 37
NC 36
NC 35
NC 34
NC 33
NC 32
NC 31
NC 30
NC 29
NC 28
NC 27
NC 26
NC 25
NC 24
NC 23
NC 22
NC 21
NC 20
NC 19
NC 18
NC 17
NC 16
NC 15
NC 14
NC 13
NC 12
NC 11
NC 10
AWB 9
D_GND 8
MENU 7
AE_LOCK 6
MENU_SEL0 5
MENU_SEL1 4
MENU_SET 3
FULL_AUTO 2
AF/MF 1
R2001
PAT/J3
P2004
VJP3172D002
SP_OUT_1 1
SP_OUT_2 2
P2005
VJP3172D002
1 SP_OUT_1
2 SP_OUT_2
P2006
VJS3319D012
1 NC
2 NC
3 NC
4 AWB
5 D_GND
6 MENU
7 AE_LOCK
8 MENU_SEL0
9 MENU_SEL1
10 MENU_SET
11 FULL_AUTO
12 AF/MF

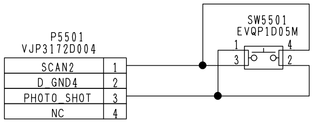
Ref No. 2000 Series.

COMPONENT NAME	LCD		01/01
CIRCUIT BOARD NO.		DRAWING NO.	
VEP000R7		KR0P84	
		SCM013	


P9001
VJS3319D018
LCD_HD 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
NON_REG_GND 17
NON_REG_GND 18
P9002
VJS3319D018
18 LCD_HD
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2 NON_REG_GND
1 NON_REG_GND
R9001
0/J3
R9002
0/J3

Ref No. 9000 Series.

COMPONENT NAME	EVF		01/01
CIRCUIT BOARD NO.		DRAWING NO.	
VEP000S1		KR0P95	
		SCM013	


SW5501
EVQP1D05M
1
4
3
2
P5501
VJP3172D004
SCAN2 1
D_GND4 2
PHOTO_SHOT 3
NC 4

Ref No. 5500 Series.

COMPONENT NAME	PHOTO_SHOT		01/01
CIRCUIT BOARD NO.		DRAWING NO.	
VEP000S2		KR0Q00	
		SCM013	

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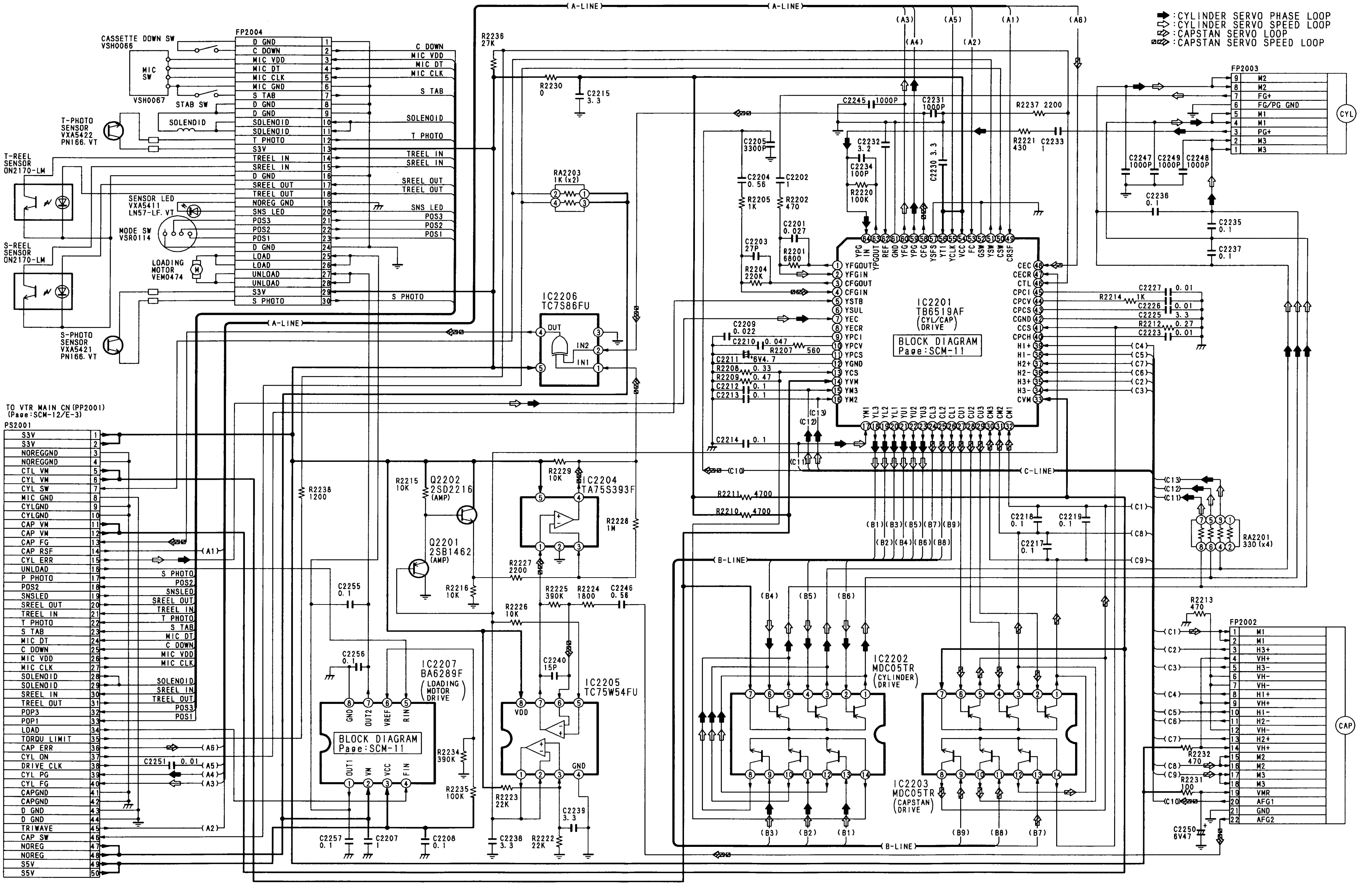
J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15


:CYLINDER SERVO PHASE LOOP
:CYLINDER SERVO SPEED LOOP
:CAPSTAN SERVO LOOP
:CAPSTAN SERVO SPEED LOOP
A-LINE
B-LINE
C-LINE
CASSETTE DOWN SW
VSH0066
MIC SW
VSH0067
STAB SW
SOLENOID
T-PHOTO SENSOR VXA5422 PN166.VT
T-REEL SENSOR ON2170-LM
SENSOR LED VXA5411 LN57-LF.VT
MODE SW VSR0114
LOADING MOTOR VEM0474
S-REEL SENSOR ON2170-LM
S-PHOTO SENSOR VXA5421 PN166.VT
FP2004
D GND
C DOWN
MIC VDD
MIC DT
MIC CLK
MIC GND
S TAB
SOLENOID
T PHOTO
S3V
TREEL IN
SREEL IN
SREEL OUT
TREEL OUT
NOREG GND
SNS LED
POS3
POS2
POS1
LOAD
UNLOAD
S PHOTO
TO VTR MAIN CN(PP2001) (Page:SCM-12/E-3)
PS2001
S5V
NOREGGND
CTL VM
CYL VM
CYL SW
CYLGND
CAP VM
CAP FG
CAP RSF
CYL ERR
P PHOTO
SNSLED
POP3
POP1
TORQU LIMIT
CAP ERR
CYL ON
DRIVE CLK
CYL PG
CYL FG
CAPGND
TRIWAVE
CAP SW
NOREG
IC2206 TC7S86FU
IC2204 TA75S393F
Q2202 2SD2216 (AMP)
Q2201 2SB1462 (AMP)
IC2207 BA6289F (LOADING MOTOR DRIVE)
BLOCK DIAGRAM Page:SCM-11
IC2205 TC75W54FU
IC2201 TB6519AF (CYL/CAP DRIVE)
BLOCK DIAGRAM Page:SCM-11
IC2202 MDC05TR (CYLINDER DRIVE)
IC2203 MDC05TR (CAPSTAN DRIVE)
FP2003
M2
FG+
FG/PG GND
M1
PG+
M3
CYL
FP2002
H3+
VH+
H3-
VH-
H1+
H1-
H2-
H2+
VMR
AFG1
GND
AFG2
CAP
RA2203 1K(x2)
RA2201 330(x4)
R2236 27K
R2230 0
C2215 3.3
R2237 2200
R2221 430
C2233 1
C2245 1000P
C2231 1000P
C2205 3300P
C2232 3.2
C2234 100P
R2220 100K
C2230 3.3
C2204 0.56
C2202 1
R2205 1K
R2202 470
C2201 0.027
C2203 27P
R2201 6800
R2204 220K
C2209 0.022
C2210 0.047
R2207 560
C2211 6V4.7
R2208 0.33
R2209 0.47
C2212 0.1
C2213 0.1
C2214 0.1
C2247 1000P
C2249 1000P
C2248 1000P
C2236 0.1
C2235 0.1
C2237 0.1
C2227 0.01
R2214 1K
C2226 0.01
C2225 3.3
R2212 0.27
C2223 0.01
R2211 4700
R2210 4700
C2218 0.1
C2219 0.1
C2217 0.1
R2213 470
R2232 470
R2231 100
C2250 6V47
R2238 1200
R2215 10K
R2229 10K
R2228 1M
R2227 2200
R2216 10K
R2225 390K
R2224 1800
C2246 0.56
R2226 10K
C2240 15P
C2255 0.1
C2256 0.1
R2234 390K
R2235 100K
R2223 22K
C2239 3.3
C2238 3.3
R2222 22K
C2257 0.1
C2207 1
C2208 0.1
C2251 0.01
1
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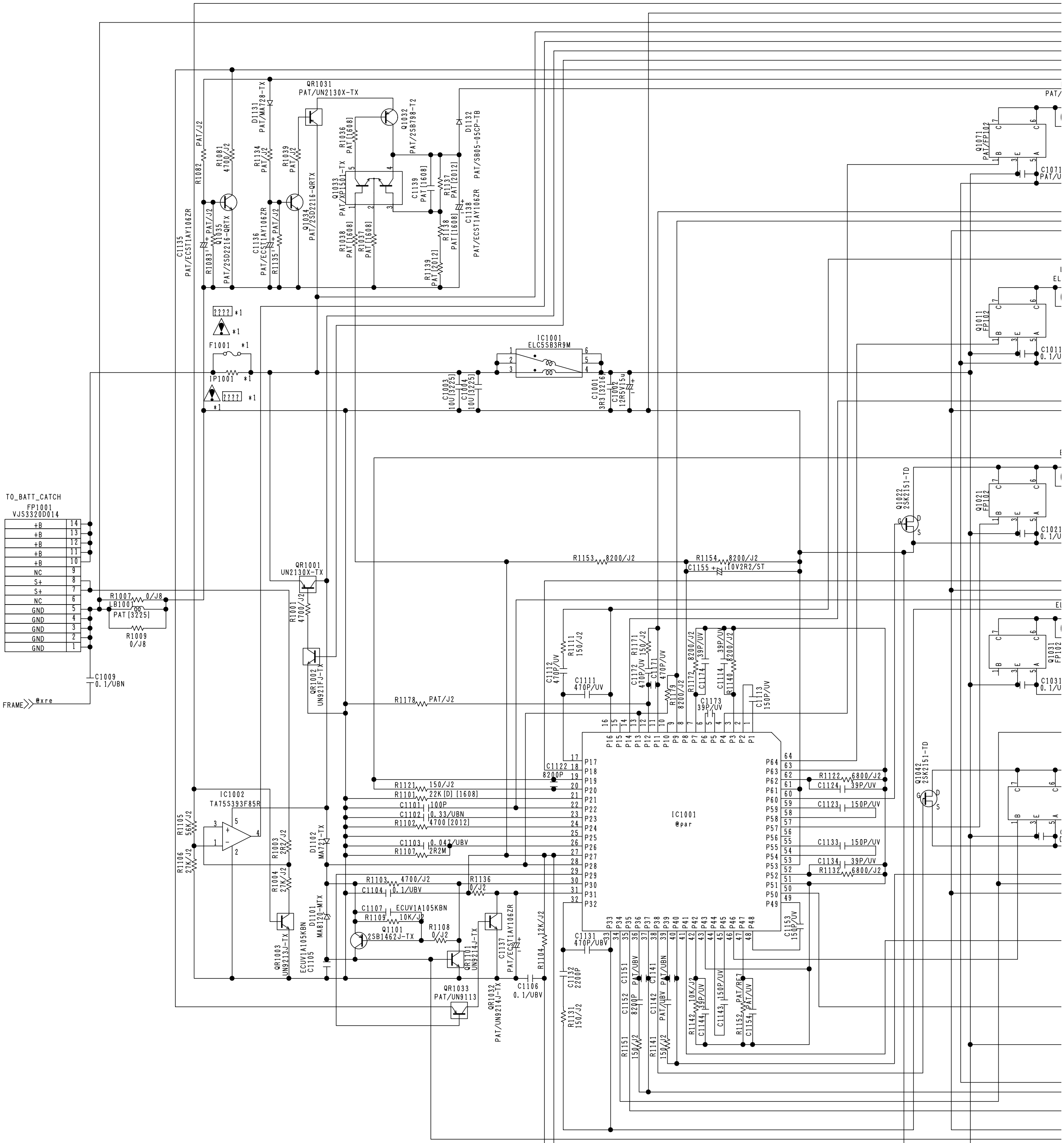
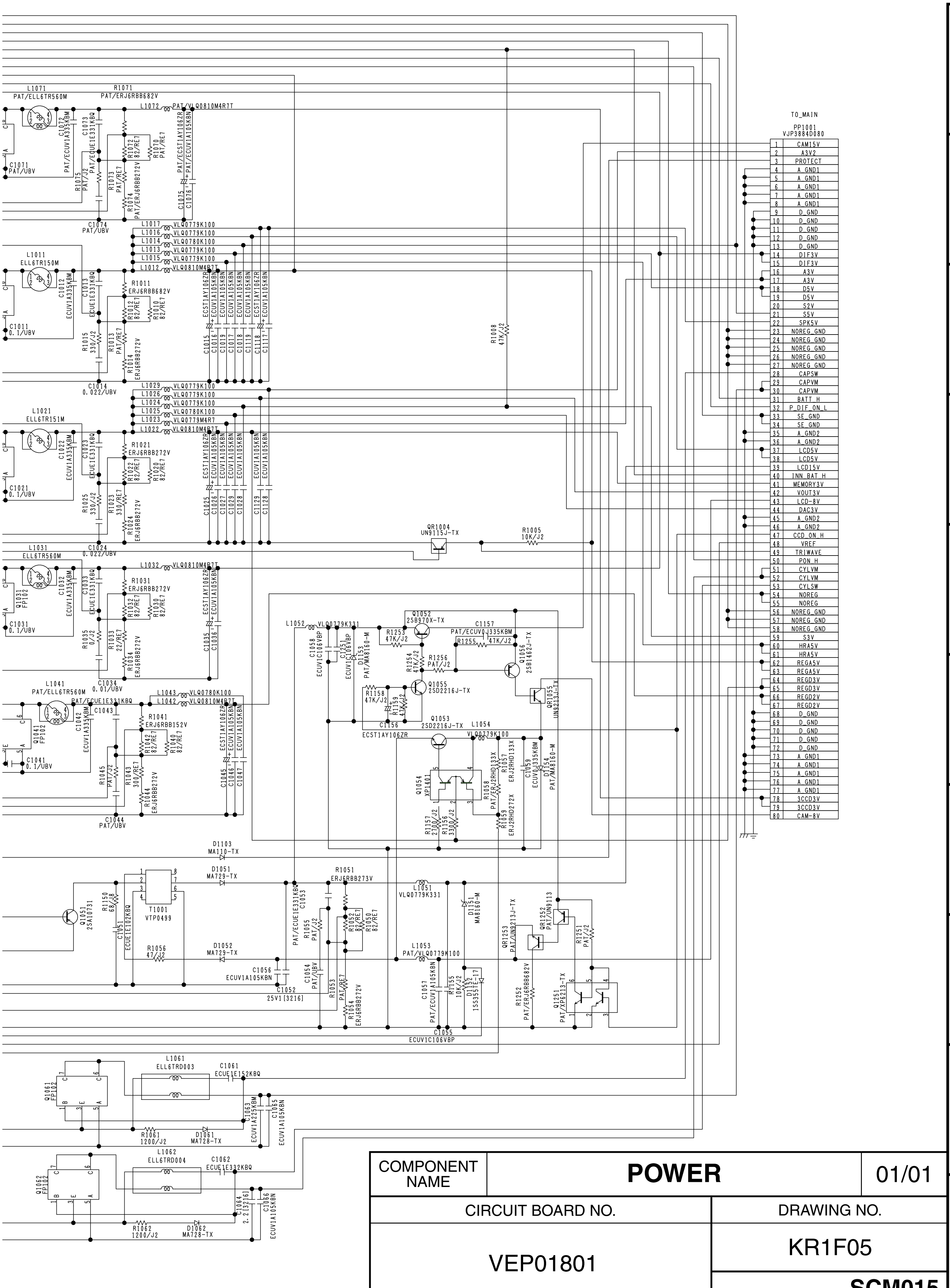
COMPONENT NAME	DRIVE	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP02561		
		SCM014



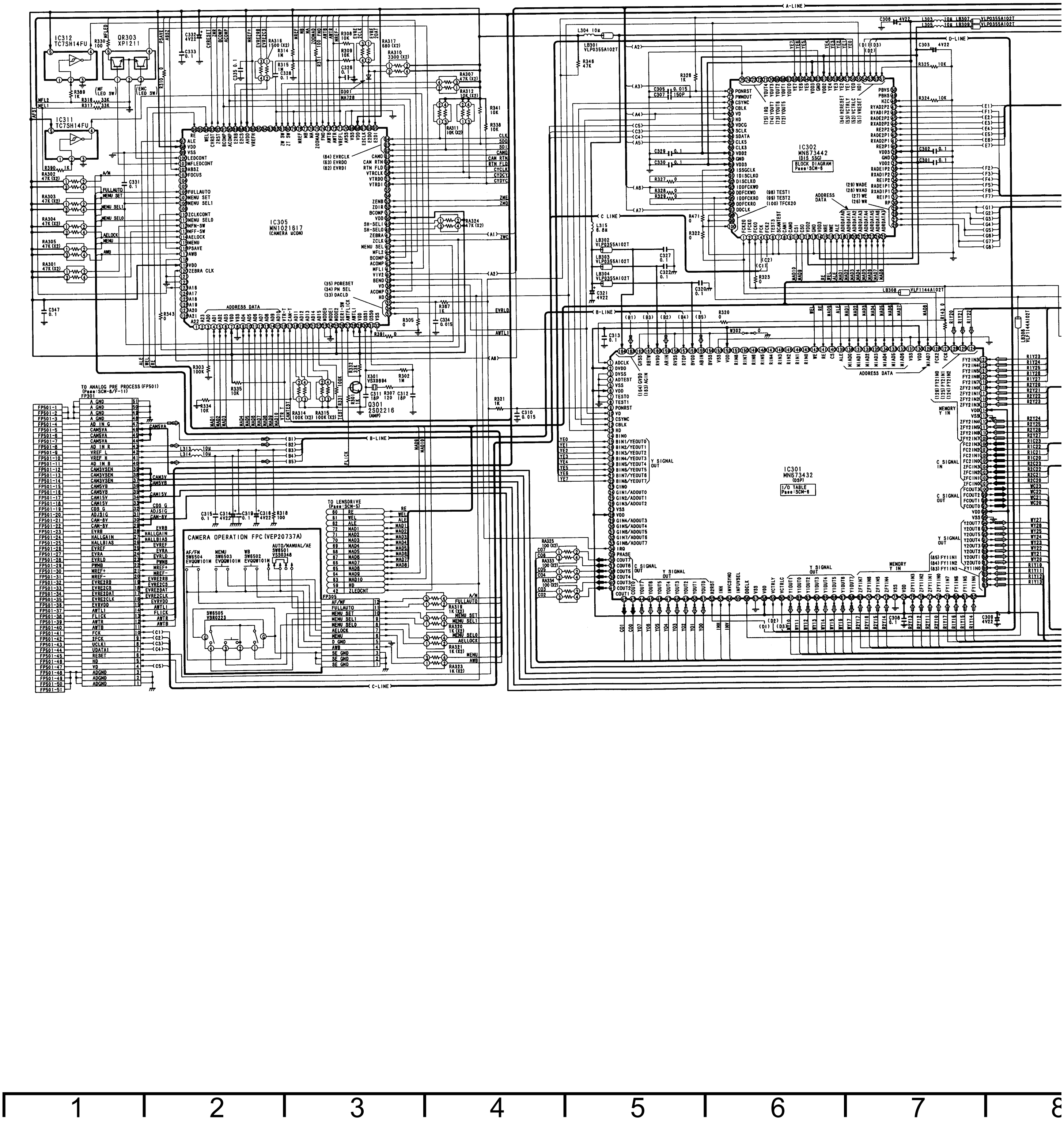
TO_BATT_CATCH
FP1001
VJS3320D014
+B
+B
+B
+B
+B
NC
S+
S+
NC
GND
GND
GND
GND
GND
FRAME
@xre
C1009
0.1/UBN
R1007 0/J8
B1001
PAT[3225]
R1009
0/J8
R1082 PAT/J2
R1081 4700/J2
Q1035 PAT/2SD2216-QRTX
R1083 PAT/J2
C1135 PAT/ECST1AY106ZR
D1131 PAT/MA728-TX
R1134 PAT/J2
R1039 PAT/J2
Q1034 PAT/2SD2216-QRTX
C1136 PAT/ECST1AY106ZR
R1135 PAT/J2
QR1031 PAT/UN2130X-TX
R1036 PAT[1608]
Q1032 PAT/2SB798-T2
Q1033 PAT/XP1501-TX
R1038 PAT[1608]
R1037 PAT[1608]
C1139 PAT[1608]
R1137 PAT[2012]
R1138 PAT[1608]
R1139 PAT[2012]
C1138 PAT/ECST1AY106ZR
D1132 PAT/SB05-05CP-TB
F1001 *1
IP1001 *1
IC1001 ELC5SB3R9M
C1003 10U[3225]
C1004 10U[3225]
C1001 3R3[3216]
C1002 12R5[15u]
QR1001 UN2130X-TX
R1001 4700/J2
QR1002 UN921FJ-TX
R1178 PAT/J2
R1153 8200/J2
R1154 8200/J2
C1155 10V2R2/ST
Q1022 2SK2151-TD
Q1042 2SK2151-TD
Q1071 PAT/FP102
C1071 PAT/U
Q1011 FP102
C1011 0.1/U
Q1021 FP102
C1021 0.1/U
Q1031 FP102
C1031 0.1/U
PAT/
EL
C1112 470P/UV
R1111 150/J2
C1111 470P/UV
C1172 470P/UV
R1171 150/J2
C1171 470P/UV
R1173 8200/J2
R1172 8200/J2
C1174 39P/UV
C1173 39P/UV
C1114 39P/UV
R1140 8200/J2
C1113 150P/UV
C1122 8200P
R1121 150/J2
R1101 22K[D][1608]
C1101 100P
C1102 0.33/UBN
R1102 4700[2012]
C1103 0.047/UBV
R1107 2R2M
IC1002 TA75S393F85R
R1105 56K/J2
R1106 27K/J2
R1003 2R2/J2
R1004 27K/J2
D1102 MA721-TX
D1101 MA8120-MTX
QR1003 UN9213J-TX
C1105 ECUV1A105KBN
R1103 4700/J2
C1104 0.1/UBV
C1107 ECUV1A105KBN
R1109 10K/J2
Q1101 2SB1462J-TX
R1108 0/J2
R1136 0/J2
QR1101 UN9214J-TX
C1137 PAT/ECST1AY106ZR
QR1033 PAT/UN9113
QR1032 PAT/UN9214J-TX
C1106 0.1/UBV
R1104 12K/J2
C1131 470P/UBV
C1132 2200P
R1131 150/J2
C1151
C1152 8200P
R1151 150/J2
C1141 PAT/UBN
C1142 PAT/UBV
R1141 150/J2
R1142 10K/J2
C1144 39P/UV
C1143 150P/UV
R1152 PAT/REF
C1154 PAT/UV
C1153 150P/UV
IC1001
@par
R1122 6800/J2
C1124 39P/UV
C1123 150P/UV
C1133 150P/UV
C1134 39P/UV
R1132 6800/J2

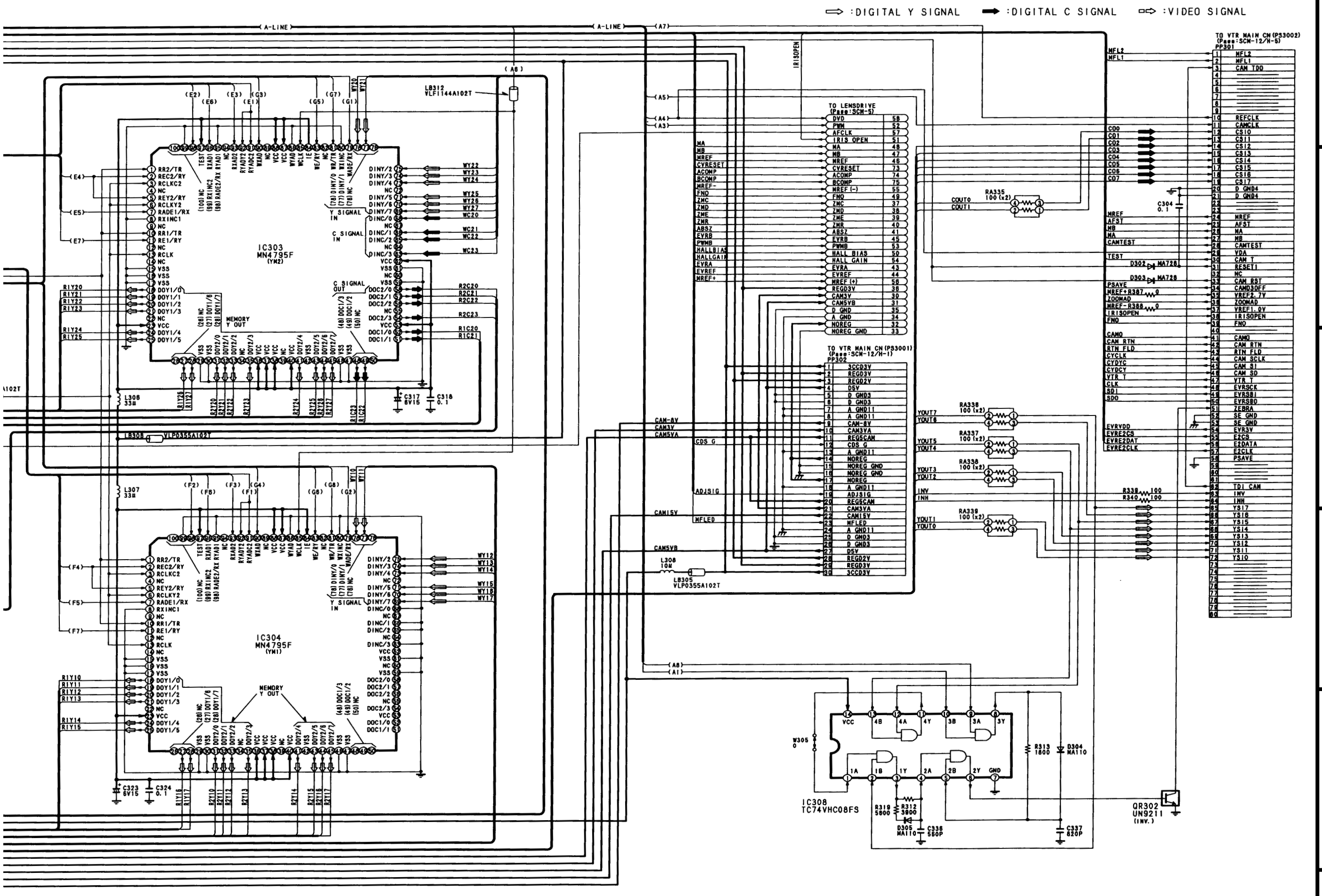
NOTE
(*1):KISHU KIRIKAE SANSHOU
PAT=PATTERN ONLY
Ref No.60000 Series.



TO_MAIN
PP1001
VJP3884D080
1 CAM15V
2 A3V2
3 PROTECT
4 A_GND1
5 A_GND1
6 A_GND1
7 A_GND1
8 A_GND1
9 D_GND
10 D_GND
11 D_GND
12 D_GND
13 D_GND
14 DIF3V
15 DIF3V
16 A3V
17 A3V
18 D5V
19 D5V
20 S2V
21 S5V
22 SPK5V
23 NOREG_GND
24 NOREG_GND
25 NOREG_GND
26 NOREG_GND
27 NOREG_GND
28 CAPSW
29 CAPVM
30 CAPVM
31 BATT_H
32 P_DIF_ON_L
33 SE_GND
34 SE_GND
35 A_GND2
36 A_GND2
37 LCD5V
38 LCD5V
39 LCD15V
40 INN_BAT_H
41 MEMORY3V
42 VOUT3V
43 LCD-8V
44 DAC3V
45 A_GND2
46 A_GND2
47 CCD_ON_H
48 VREF
49 TRIWAVE
50 PON_H
51 CYLVM
52 CYLVM
53 CYLSW
54 NOREG
55 NOREG
56 NOREG_GND
57 NOREG_GND
58 NOREG_GND
59 S3V
60 HRA5V
61 HRA5V
62 REGA5V
63 REGA5V
64 REGD3V
65 REGD3V
66 REGD2V
67 REGD2V
68 D_GND
69 D_GND
70 D_GND
71 D_GND
72 D_GND
73 A_GND1
74 A_GND1
75 A_GND1
76 A_GND1
77 A_GND1
78 3CCD3V
79 3CCD3V
80 CAM-8V
L1071 PAT/ELL6TR560M
R1071 PAT/ERJ6RBB682V
L1072 PAT/VLQ0810M4R7T
C1072 PAT/ECUV1A335KBM
C1073 PAT/ECUE1E331KBQ
C1071 PAT/UBV
R1075 PAT/J2
R1073 PAT/RE7
R1072 82/RE7
R1070 PAT/RE7
R1074 PAT/ERJ6RBB272V
C1075 PAT/ECST1AY106ZR
C1076 PAT/ECUV1A105KBN
C1074 PAT/UBV
L1017 VLQ0779K100
L1016 VLQ0779K100
L1014 VLQ0780K100
L1013 VLQ0779K100
L1015 VLQ0779K100
L1012 VLQ0810M4R7T
L1011 ELL6TR150M
C1012 ECUV1A335KBM
C1013 ECUE1E331KBQ
R1011 ERJ6RBB682V
R1012 82/RE7
R1010 82/RE7
C1011 0.1/UBV
R1015 330/J2
R1013 PAT/RE7
R1014 ERJ6RBB272V
C1014 0.022/UBV
C1015 ECST1AY106ZR
C1016 ECUV1A105KBN
C1019 ECUV1A105KBN
C1017 ECUV1A105KBN
C1018 ECUV1A105KBN
C1119 ECUV1A105KBN
C1118 ECST1AY106ZR
C1117 ECUV1A105KBN
R1008 47K/J2
L1029 VLQ0779K100
L1026 VLQ0779K100
L1024 VLQ0779K100
L1025 VLQ0780K100
L1023 VLQ0779M4R7
L1022 VLQ0810M4R7T
L1021 ELL6TR151M
C1022 ECUV1A335KBM
C1023 ECUE1E331KBQ
R1021 ERJ6RBB272V
R1022 82/RE7
R1020 82/RE7
C1021 0.1/UBV
R1025 330/J2
R1023 330/RE7
R1024 ERJ6RBB272V
C1025 ECST1AY106ZR
C1026 ECUV1A105KBN
C1027 ECUV1A105KBN
C1028 ECUV1A105KBN
C1129 ECUV1A105KBN
C1128 ECUV1A105KBN
C1024 0.022/UBV
QR1004 UN9115J-TX
R1005 10K/J2
L1031 ELL6TR560M
L1032 VLQ0810M4R7T
C1032 ECUV1A335KBM
C1033 ECUE1E331KBQ
R1031 ERJ6RBB272V
R1032 82/RE7
R1030 82/RE7
Q1031 FP102
C1031 0.1/UBV
R1035 0/J2
R1033 22/RE7
R1034 ERJ6RBB272V
C1035 ECST1AY106ZR
C1036 ECUV1A105KBN
C1034 0.01/UBV
L1041 PAT/ELL6TR560M
PAT/ECUE1E331KBQ
L1043 VLQ0780K100
L1042 VLQ0810M4R7T
C1042 ECUV1A335KBM
C1043
R1041 ERJ6RBB152V
Q1041 FP102
R1042 82/RE7
R1040 82/RE7
C1041 0.1/UBV
R1045 PAT/J2
R1043 300/RE7
R1044 ERJ6RBB272V
C1045 ECST1AY106ZR
C1046 ECUV1A105KBN
C1047 ECUV1A105KBN
C1044 PAT/UBV
L1052 VLQ0779K331
Q1052 2SB970X-TX
C1157 PAT/ECUV0J335KBM
R1253 47K/J2
R1255 47K/J2
C1058 ECUV1C106VBP
C1151 ECUV1C106VBP
D1153 PAT/MA8160-M
R1254 47K/J2
R1256 PAT/J2
Q1056 2SB1462J-TX
Q1055 2SD2216J-TX
R1158 47K/J2
R1159 47K/J2
QR1055 UN9213J-TX
C1156 ECST1AY106ZR
Q1053 2SD2216J-TX
L1054 VLQ0779K100
Q1054 XP1401
R1057 ERJ2RHD133X
C1059 ECUV0J335KBM
D1154 PAT/MA8160-M
R1058 PAT/ERJ2RHD133X
R1059 ERJ2RHD272X
R1157 2700/J2
R1156 3300/J2
D1103 MA110-TX
D1051 MA729-TX
R1051 ERJ6RBB273V
T1001 VTP0499
Q1051 2SA1073I
R1150 68/J2
C1051 ECUE1E102KBQ
R1056 47/J2
D1052 MA729-TX
C1053
L1051 VLQ0779K331
D1151 MA8160-M
R1055 PAT/J2
R1052 82/RE7
R1050 82/RE7
PAT/ECUE1E331KBQ
C1056 ECUV1A105KBN
C1052 25V1[3216]
C1054 PAT/UBV
R1053 PAT/RE7
R1054 ERJ6RBB272V
L1053 PAT/VLQ0779K100
C1057 PAT/ECUV1A105KBN
R1155 10K/J2
D1152 1SS355TE-17
C1055 ECUV1C106VBP
QR1253 PAT/UN9213J-TX
QR1252 PAT/UN9113
R1251 PAT/J2
R1252 PAT/ERJ6RBB682V
Q1251 PAT/XP6213-TX
Q1061 FP102
L1061 ELL6TRD003
C1061 ECUE1E152KBQ
C1063 ECUV1A225KBM
C1065 ECUV1A105KBN
R1061 1200/J2
D1061 MA728-TX
Q1062 FP102
L1062 ELL6TRD004
C1062 ECUE1E332KBQ
C1064 2.2[3216]
C1066 ECUV1A105KBN
R1062 1200/J2
D1062 MA728-TX

COMPONENT NAME	**POWER**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP01801	KR1F05	
	SCM015	

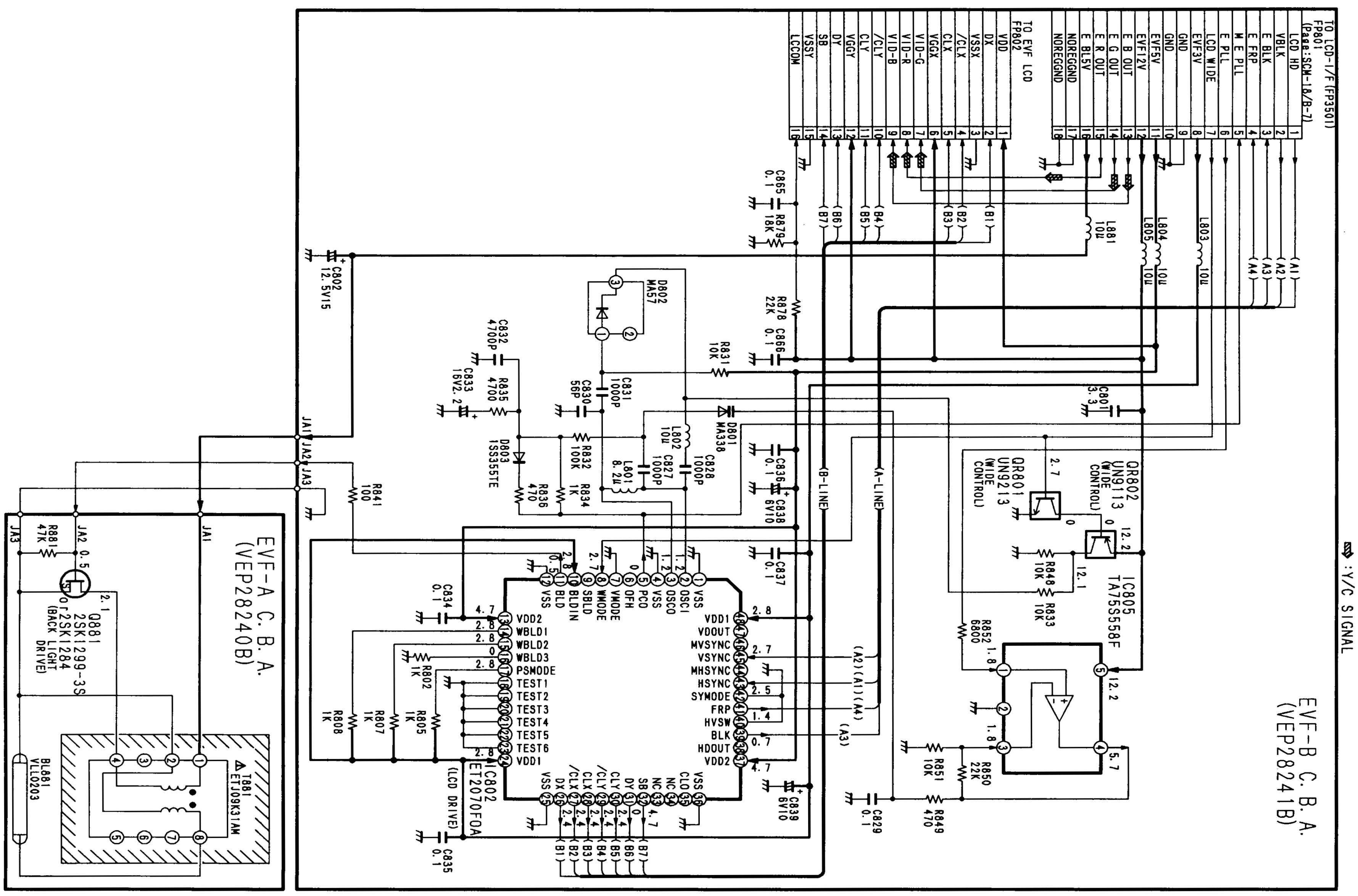

IC312 TC7SH14FU
QR303 XP1211
IC311 TC7SH14FU
IC305 MN1021617 (CAMERA MCON)
IC302 MN673442 (DIS SSG)
BLOCK DIAGRAM Page:SCM-6
IC301 MN673432 (DSP)
I/O TABLE Page:SCM-6
Q301 2SD2216 (AMP)
X301 VSX0894
TO ANALOG PRE PROCESS (FP501) (Page:SCM-8/F-11)
FP301
TO LENSDRIVE (Page:SCM-5)
FP305
CAMERA OPERATION FPC (VEP20737A)
SW6505 VSR0223
A-LINE
B-LINE
C-LINE
D-LINE
ADDRESS DATA
Y SIGNAL IN
Y SIGNAL OUT
C SIGNAL IN
C SIGNAL OUT
MEMORY Y IN
1
2
3
4
5
6
7
8


:DIGITAL Y SIGNAL
:DIGITAL C SIGNAL
:VIDEO SIGNAL
A-LINE
IC303
MN4795F
(YM2)
IC304
MN4795F
(YM1)
Y SIGNAL IN
C SIGNAL IN
C SIGNAL OUT
MEMORY Y OUT
LB312
VLF1144A102T
LB306
VLP0355A102T
L306
33μ
L307
33μ
C317
6V15
C318
0.1
C323
6V15
C324
0.1
IRISOPEN
TO LENSDRIVE
(Page:SCM-5)
TO VTR MAIN CN(P53001)
(Page:SCM-12/H-1)
PP302
TO VTR MAIN CN(PS3002)
(Page:SCM-12/H-5)
PP301
RA335
100 (x2)
RA336
100 (x2)
RA337
100 (x2)
RA338
100 (x2)
RA339
100 (x2)
R339
100
R340
100
C304
0.1
D302 MA728
D303 MA728
L308
10μ
LB305
VLP0355A102T
IC308
TC74VHC08FS
W305
0
R313
1800
D304
MA110
R319
5600
R312
3900
D305
MA110
C336
560P
C337
620P
QR302
UN9211
(INV.)

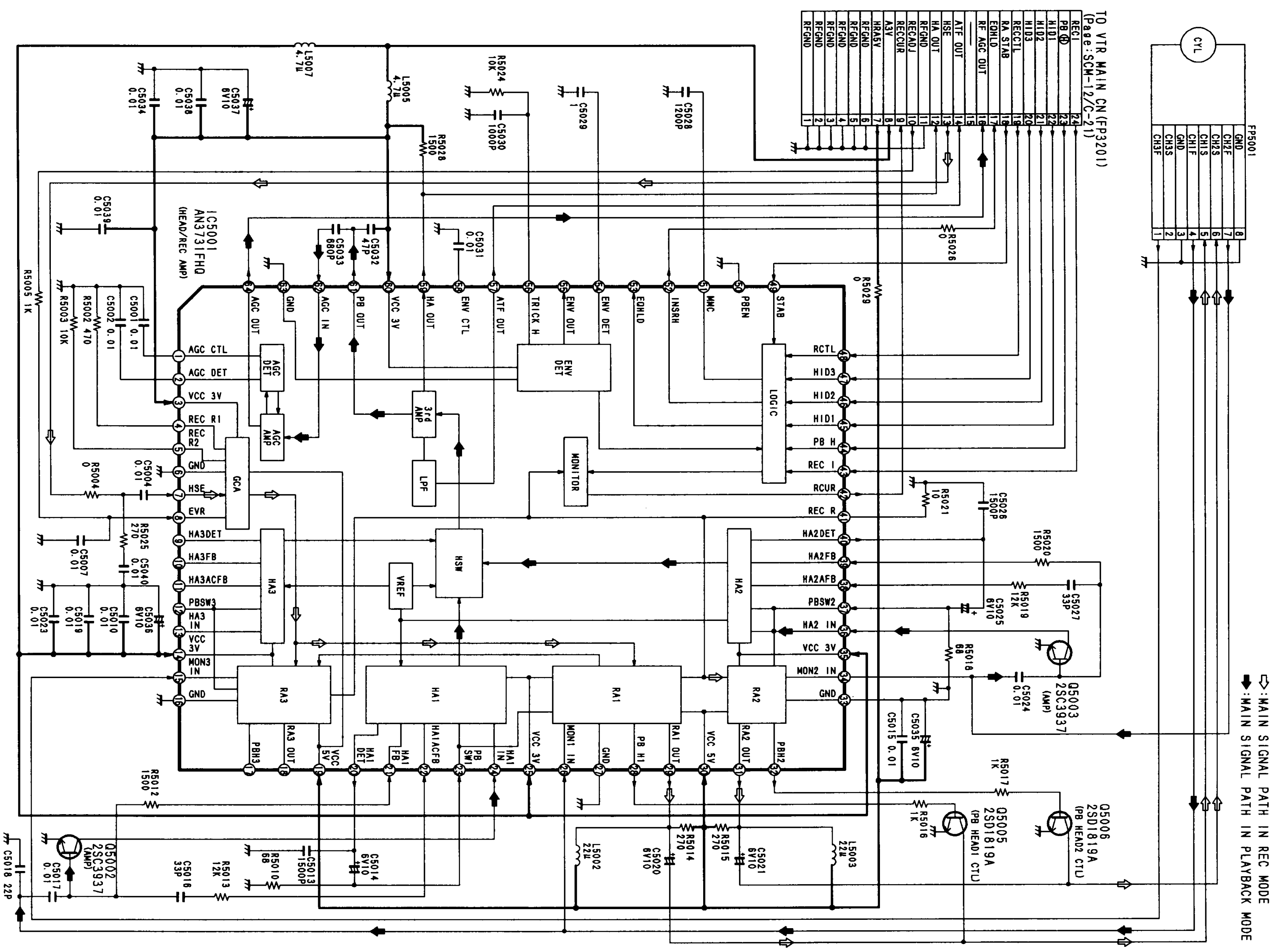
COMPONENT NAME	CAMERA MAIN & CAMERA OPERATION	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP23443 VEP20737	SCM016	

A
B
C
D
E
F
G
H
I
J

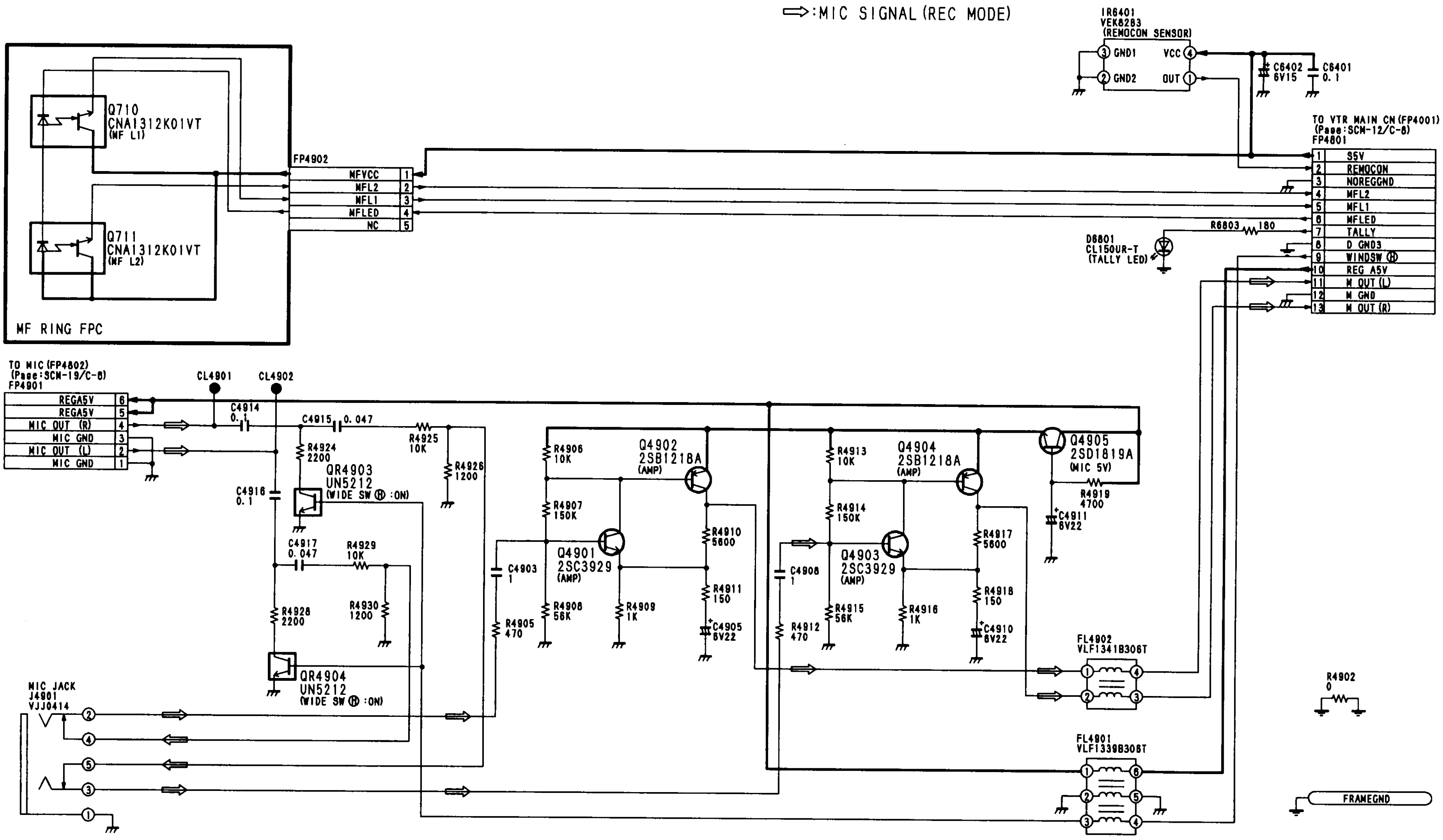
8 9 10 11 12 13 14 15


EVF-A C.B.A. (VEP28240B)
EVF-B C.B.A. (VEP28241B)
TO EVF LCD FP802
TO LCD-I/F (FP3501) FP801 (Page:SCM-18/B-7)
LCCOM
VSSY
SB
DY
VGGY
CLY
/CLY
VID-B
VID-R
VID-G
VGGX
CLX
/CLX
VSSX
DX
VDD
NOREGGND
E BL5V
E R OUT
E G OUT
E B OUT
EVF12V
EVF5V
GND
EVF3V
LCD WIDE
E PLL
M E PLL
E FRP
E BLK
VBLK
LCD HD
IC802 ET2070F0A (LCD DRIVE)
IC805 TA75S558F
QR801 UN9213 (WIDE CONTROL)
QR802 UN9113 (WIDE CONTROL)
Q881 2SK1299-3S or 2SK1284 (BACK LIGHT DRIVE)
T881 ETJ09K31AM
BL881 VLL0203
D801 MA338
D802 MA57
D803 1SS355TE
L801 8.2µ
L802 10µ
L803 10µ
L804 10µ
L805 10µ
L881 10µ
C802 12.5V15
C827 1000P
C828 1000P
C829 0.1
C830 56P
C831 1000P
C832 4700P
C833 16V2.2
C834 0.1
C835 0.1
C836 0.1
C837 0.1
C838 6V10
C839 6V10
C801 3.3
C865 0.1
C866 0.1
R802 1K
R805 1K
R807 1K
R808 1K
R831 10K
R832 100K
R833 10K
R834 1K
R835 4700
R836 470
R841 100
R848 10K
R849 470
R850 22K
R851 10K
R852 6800
R878 22K
R879 18K
R881 47K
JA1
JA2
JA3
A-LINE
B-LINE
VDD2
WBLD1
WBLD2
WBLD3
PSMODE
TEST1
TEST2
TEST3
TEST4
TEST5
TEST6
VDD1
VSS
BLD
BLDIN
SBLD
WMODE
OFH
PCO
OSCI
OSCO
VDDOUT
MVSYNC
VSYNC
MHSYNC
HSYNC
SYMODE
FRP
HVSW
BLK
HDOUT
DX
/CLX
CLX
/CLY
CLY
DY
SB
NC
CLO
:Y/C SIGNAL
A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

COMPONENT NAME	E.V.F.(A) & E.V.F.(B)	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP28240 VEP28241		SCM017


TO VTR MAIN CN (FP3201) (Page:SCM-12/C-21)
IC5001 AN3731FHQ (HEAD/REC AMP)
FP5001
CYL
Q5002 2SC3937 (AMP)
Q5003 2SC3937 (AMP)
Q5005 2SD1819A (PB HEAD1 CTL)
Q5006 2SD1819A (PB HEAD2 CTL)
AGC DET
AGC AMP
GCA
3rd AMP
LPF
ENV DET
MONITOR
LOGIC
HSW
VREF
HA1
HA2
HA3
RA1
RA2
RA3
REC1
PB H
HID1
HID2
HID3
RECCTL
RA STAB
EQHLD
RF AGC OUT
ATF OUT
HSE
HA OUT
RFGND
RECADJ
RECCUR
A3V
HRA5V
CH3F
CH3S
GND
CH1F
CH1S
CH2S
CH2F
⇩ :MAIN SIGNAL PATH IN REC MODE
⬇ :MAIN SIGNAL PATH IN PLAYBACK MODE

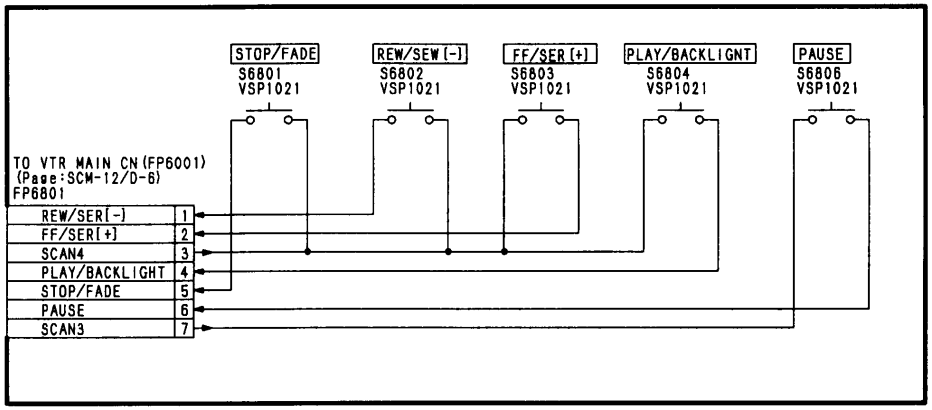
COMPONENT NAME	HEAD AMP	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP05352		
		SCM018



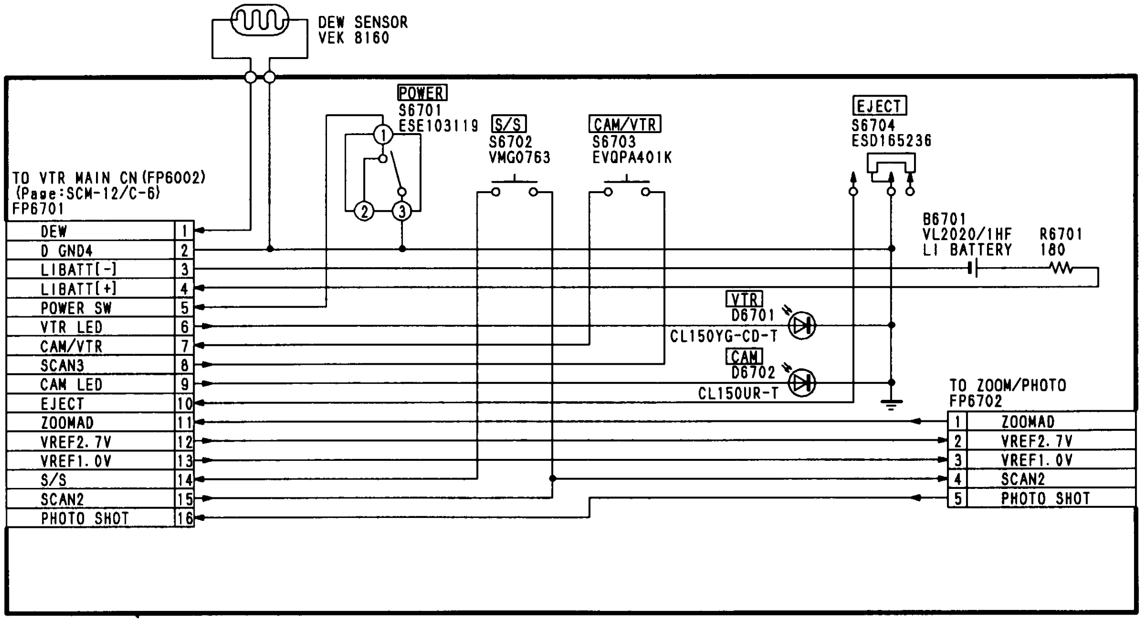
⇨:MIC SIGNAL (REC MODE)
IR6401
VEK8283
(REMOCON SENSOR)
GND1
GND2
VCC
OUT
C6402
6V15
C6401
0.1
TO VTR MAIN CN (FP4001)
(Page:SCM-12/C-8)
FP4801
S5V
REMOCON
NOREGGND
MFL2
MFL1
MFLED
TALLY
D GND3
WINDSW Ⓗ
REG A5V
M OUT (L)
M GND
M OUT (R)
R6803
180
D6801
CL150UR-T
(TALLY LED)
Q710
CNA1312K01VT
(MF L1)
Q711
CNA1312K01VT
(MF L2)
MF RING FPC
FP4902
MFVCC
MFL2
MFL1
MFLED
NC
TO MIC (FP4802)
(Page:SCM-19/C-8)
FP4901
REGA5V
REGA5V
MIC OUT (R)
MIC GND
MIC OUT (L)
MIC GND
CL4901
CL4902
C4914
0.1
C4915
0.047
R4924
2200
R4925
10K
R4926
1200
QR4903
UN5212
(WIDE SW Ⓗ :ON)
C4916
0.1
C4917
0.047
R4929
10K
R4930
1200
R4928
2200
QR4904
UN5212
(WIDE SW Ⓗ :ON)
R4906
10K
Q4902
2SB1218A
(AMP)
R4907
150K
Q4901
2SC3929
(AMP)
C4903
1
R4905
470
R4908
56K
R4909
1K
R4910
5600
R4911
150
C4905
6V22
R4913
10K
Q4904
2SB1218A
(AMP)
R4914
150K
Q4903
2SC3929
(AMP)
C4908
1
R4912
470
R4915
56K
R4916
1K
R4917
5600
R4918
150
C4910
6V22
Q4905
2SD1819A
(MIC 5V)
R4919
4700
C4911
6V22
FL4902
VLF1341B306T
FL4901
VLF1339B306T
R4902
0
FRAMEGND
MIC JACK
J4901
VJJ0414

COMPONENT NAME	FRONT	01/01

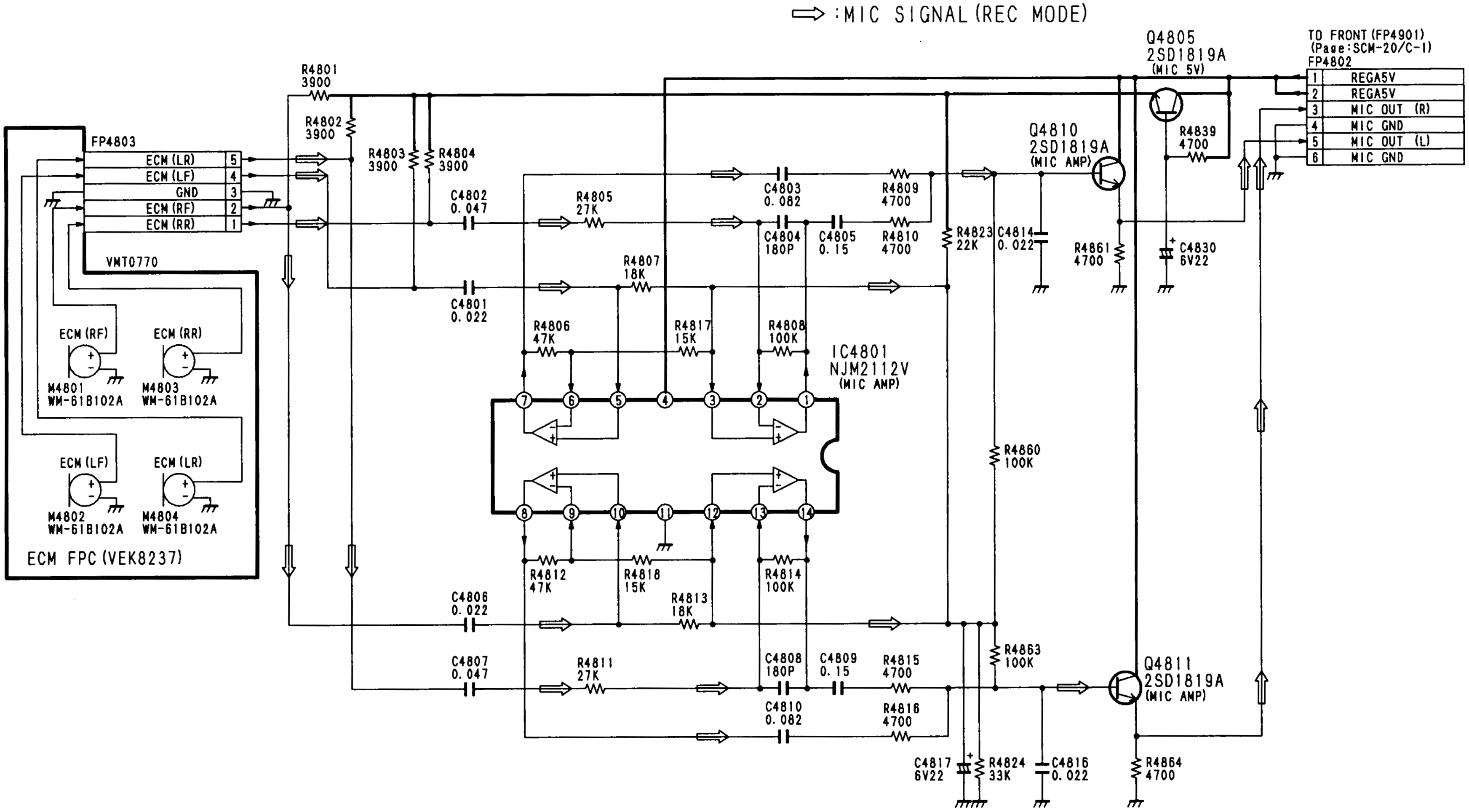
CIRCUIT BOARD NO.	DRAWING NO.
VEP04684	
	SCM019


STOP/FADE
S6801
VSP1021
REW/SEW[-]
S6802
VSP1021
FF/SER[+]
S6803
VSP1021
PLAY/BACKLIGNT
S6804
VSP1021
PAUSE
S6806
VSP1021
TO VTR MAIN CN(FP6001)
(Page:SCM-12/D-6)
FP6801
REW/SER[-] 1
FF/SER[+] 2
SCAN4 3
PLAY/BACKLIGHT 4
STOP/FADE 5
PAUSE 6
SCAN3 7

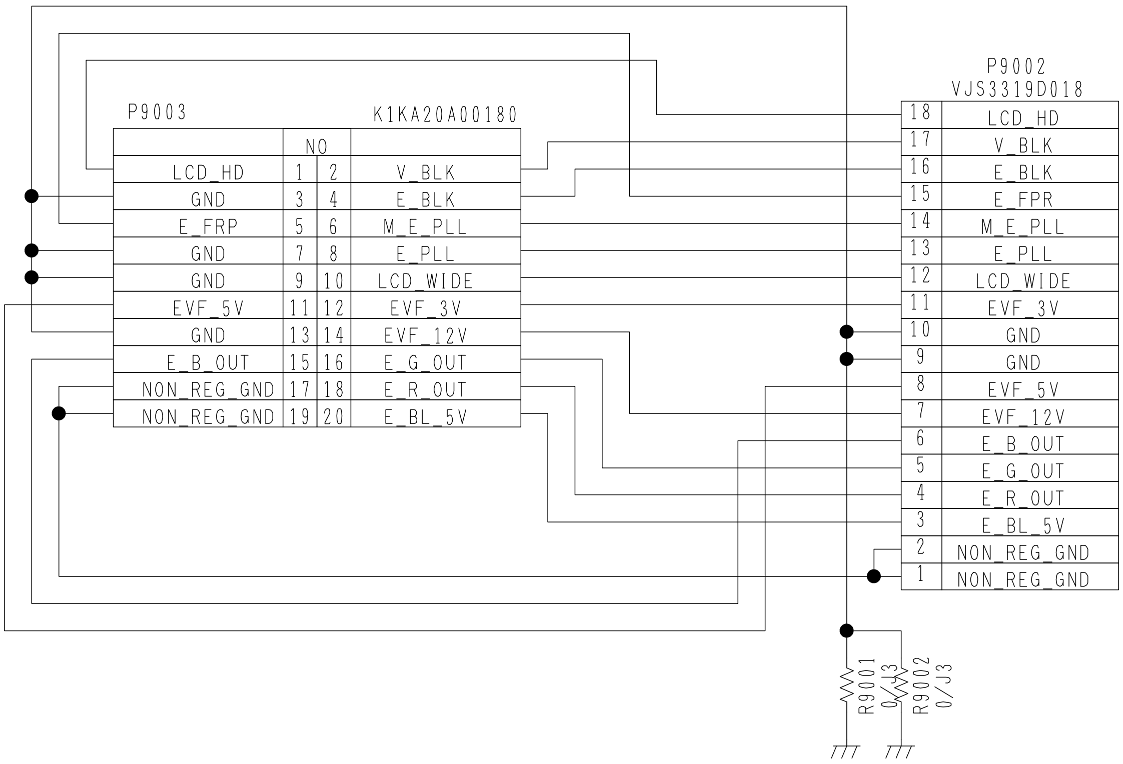
COMPONENT NAME	TOP OPERATION	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP06C24		
	SCM020	


DEW SENSOR
VEK 8160
POWER
S6701
ESE103119
1
2
3
S/S
S6702
VMG0763
CAM/VTR
S6703
EVQPA401K
EJECT
S6704
ESD165236
TO VTR MAIN CN(FP6002)
(Page:SCM-12/C-6)
FP6701
DEW 1
D GND4 2
LIBATT[-] 3
LIBATT[+] 4
POWER SW 5
VTR LED 6
CAM/VTR 7
SCAN3 8
CAM LED 9
EJECT 10
ZOOMAD 11
VREF2.7V 12
VREF1.0V 13
S/S 14
SCAN2 15
PHOTO SHOT 16
B6701
VL2020/1HF
LI BATTERY
R6701
180
VTR
D6701
CL150YG-CD-T
CAM
D6702
CL150UR-T
TO ZOOM/PHOTO
FP6702
1 ZOOMAD
2 VREF2.7V
3 VREF1.0V
4 SCAN2
5 PHOTO SHOT

COMPONENT NAME	REAR OPERATION	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP06C37		
	SCM020	

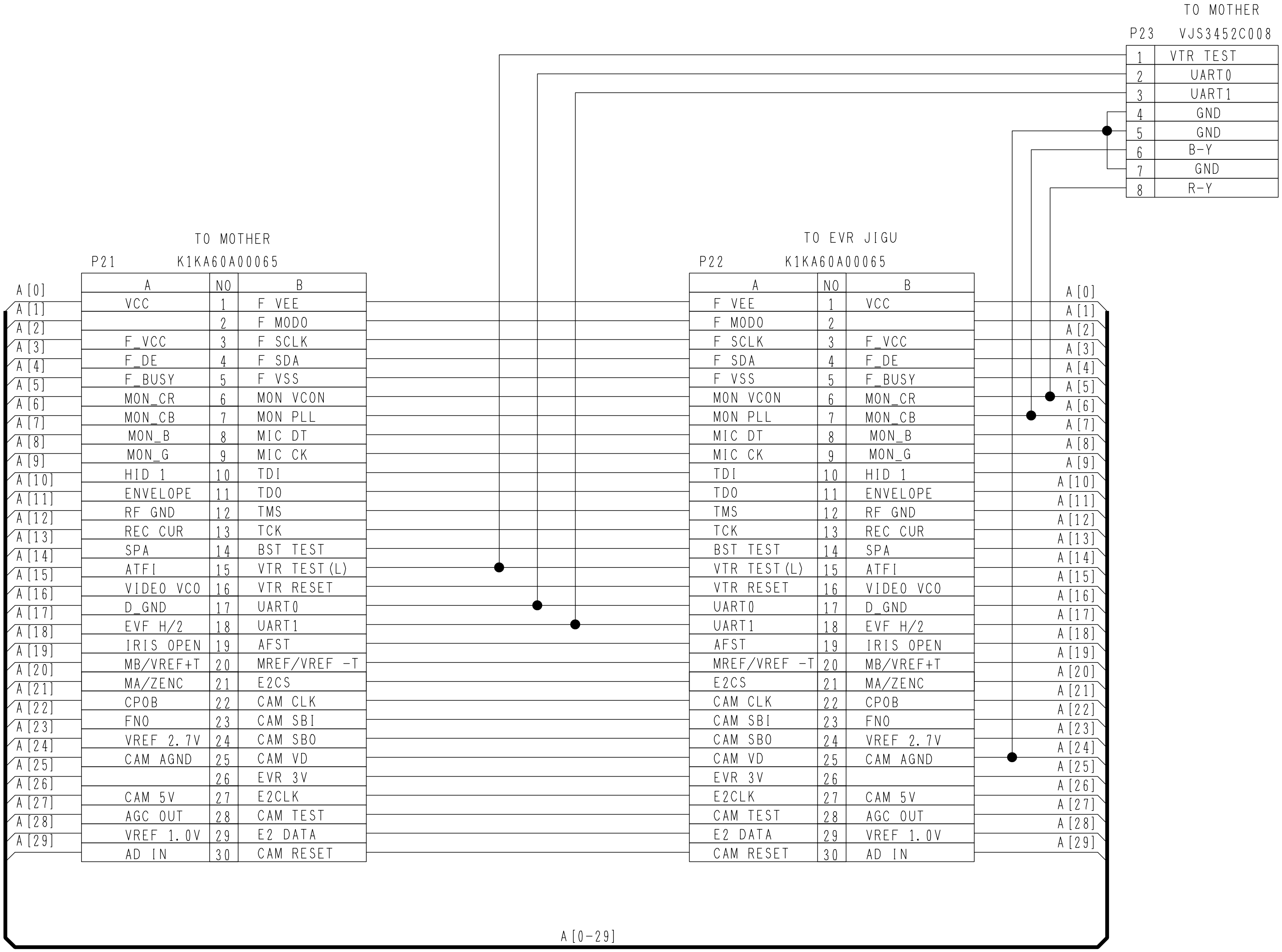

⇨ :MIC SIGNAL (REC MODE)
Q4805
2SD1819A
(MIC 5V)
TO FRONT (FP4901)
(Page:SCM-20/C-1)
FP4802
1 REGA5V
2 REGA5V
3 MIC OUT (R)
4 MIC GND
5 MIC OUT (L)
6 MIC GND
R4801
3900
R4802
3900
R4803
3900
R4804
3900
FP4803
ECM (LR) 5
ECM (LF) 4
GND 3
ECM (RF) 2
ECM (RR) 1
VMT0770
ECM (RF)
ECM (RR)
M4801
WM-61B102A
M4803
WM-61B102A
ECM (LF)
ECM (LR)
M4802
WM-61B102A
M4804
WM-61B102A
ECM FPC (VEK8237)
C4802
0.047
R4805
27K
C4803
0.082
R4809
4700
C4804
180P
C4805
0.15
R4810
4700
R4823
22K
C4814
0.022
Q4810
2SD1819A
(MIC AMP)
R4839
4700
R4861
4700
C4830
6V22
R4807
18K
C4801
0.022
R4806
47K
R4817
15K
R4808
100K
IC4801
NJM2112V
(MIC AMP)
7 6 5 4 3 2 1
8 9 10 11 12 13 14
R4860
100K
R4812
47K
R4818
15K
R4814
100K
C4806
0.022
R4813
18K
R4863
100K
C4807
0.047
R4811
27K
C4808
180P
C4809
0.15
R4815
4700
Q4811
2SD1819A
(MIC AMP)
C4810
0.082
R4816
4700
C4817
6V22
R4824
33K
C4816
0.022
R4864
4700
A B C D E F G H I J
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

COMPONENT NAME	**MIC**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP04693	**SCM021**	

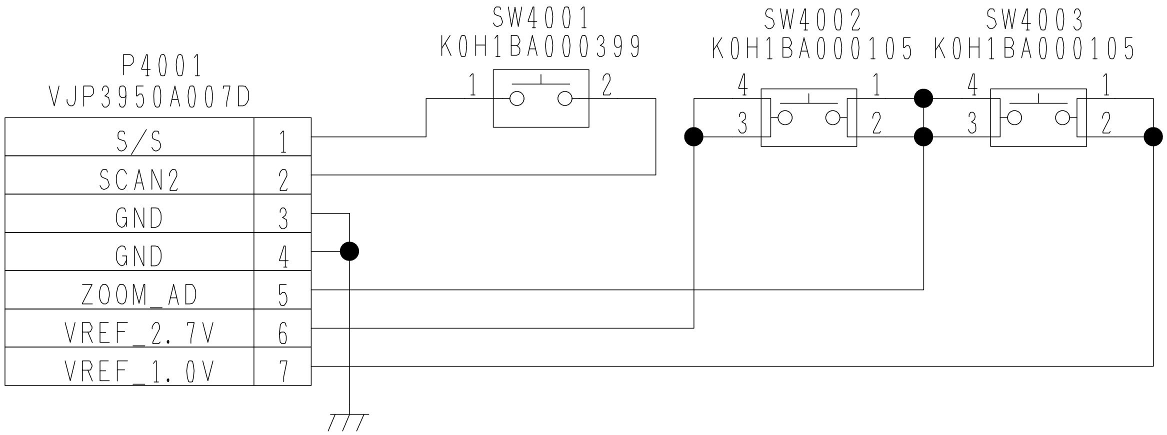

P9003
K1KA20A00180
NO
LCD_HD 1 2 V_BLK
GND 3 4 E_BLK
E_FRP 5 6 M_E_PLL
GND 7 8 E_PLL
GND 9 10 LCD_WIDE
EVF_5V 11 12 EVF_3V
GND 13 14 EVF_12V
E_B_OUT 15 16 E_G_OUT
NON_REG_GND 17 18 E_R_OUT
NON_REG_GND 19 20 E_BL_5V
P9002
VJS3319D018
18 LCD_HD
17 V_BLK
16 E_BLK
15 E_FPR
14 M_E_PLL
13 E_PLL
12 LCD_WIDE
11 EVF_3V
10 GND
9 GND
8 EVF_5V
7 EVF_12V
6 E_B_OUT
5 E_G_OUT
4 E_R_OUT
3 E_BL_5V
2 NON_REG_GND
1 NON_REG_GND
R9001
0/J3
R9002
0/J3

Ref No.9000 Series.

COMPONENT NAME	**EVF 2**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000U4	KR0Q68 **SCM022**	


TO MOTHER
P23 VJS3452C008
1 VTR TEST
2 UART0
3 UART1
4 GND
5 GND
6 B-Y
7 GND
8 R-Y
TO MOTHER
P21 K1KA60A00065
A NO B
VCC 1 F VEE
2 F MODO
F_VCC 3 F SCLK
F_DE 4 F SDA
F_BUSY 5 F VSS
MON_CR 6 MON VCON
MON_CB 7 MON PLL
MON_B 8 MIC DT
MON_G 9 MIC CK
HID 1 10 TDI
ENVELOPE 11 TDO
RF GND 12 TMS
REC CUR 13 TCK
SPA 14 BST TEST
ATFI 15 VTR TEST(L)
VIDEO VCO 16 VTR RESET
D_GND 17 UART0
EVF H/2 18 UART1
IRIS OPEN 19 AFST
MB/VREF+T 20 MREF/VREF -T
MA/ZENC 21 E2CS
CPOB 22 CAM CLK
FNO 23 CAM SBI
VREF 2.7V 24 CAM SBO
CAM AGND 25 CAM VD
26 EVR 3V
CAM 5V 27 E2CLK
AGC OUT 28 CAM TEST
VREF 1.0V 29 E2 DATA
AD IN 30 CAM RESET
TO EVR JIGU
P22 K1KA60A00065
A NO B
F VEE 1 VCC
F MODO 2
F SCLK 3 F_VCC
F SDA 4 F_DE
F VSS 5 F_BUSY
MON VCON 6 MON_CR
MON PLL 7 MON_CB
MIC DT 8 MON_B
MIC CK 9 MON_G
TDI 10 HID 1
TDO 11 ENVELOPE
TMS 12 RF GND
TCK 13 REC CUR
BST TEST 14 SPA
VTR TEST(L) 15 ATFI
VTR RESET 16 VIDEO VCO
UART0 17 D_GND
UART1 18 EVF H/2
AFST 19 IRIS OPEN
MREF/VREF -T 20 MB/VREF+T
E2CS 21 MA/ZENC
CAM CLK 22 CPOB
CAM SBI 23 FNO
CAM SBO 24 VREF 2.7V
CAM VD 25 CAM AGND
EVR 3V 26
E2CLK 27 CAM 5V
CAM TEST 28 AGC OUT
E2 DATA 29 VREF 1.0V
CAM RESET 30 AD IN
A[0]
A[1]
A[2]
A[3]
A[4]
A[5]
A[6]
A[7]
A[8]
A[9]
A[10]
A[11]
A[12]
A[13]
A[14]
A[15]
A[16]
A[17]
A[18]
A[19]
A[20]
A[21]
A[22]
A[23]
A[24]
A[25]
A[26]
A[27]
A[28]
A[29]
A[0-29]

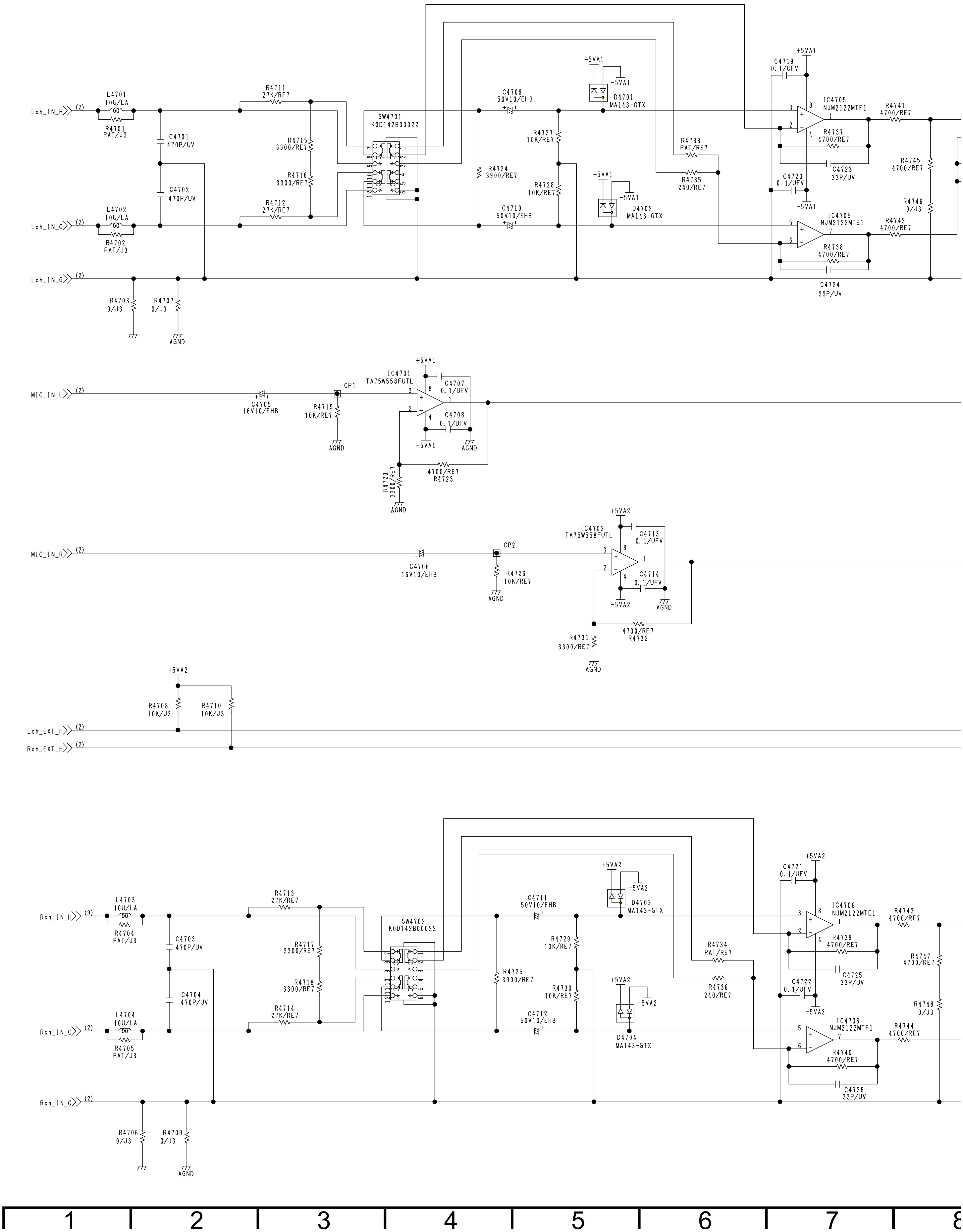
COMPONENT NAME	**EVR EXT**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000T8	KR0Q61	
	SCM023	

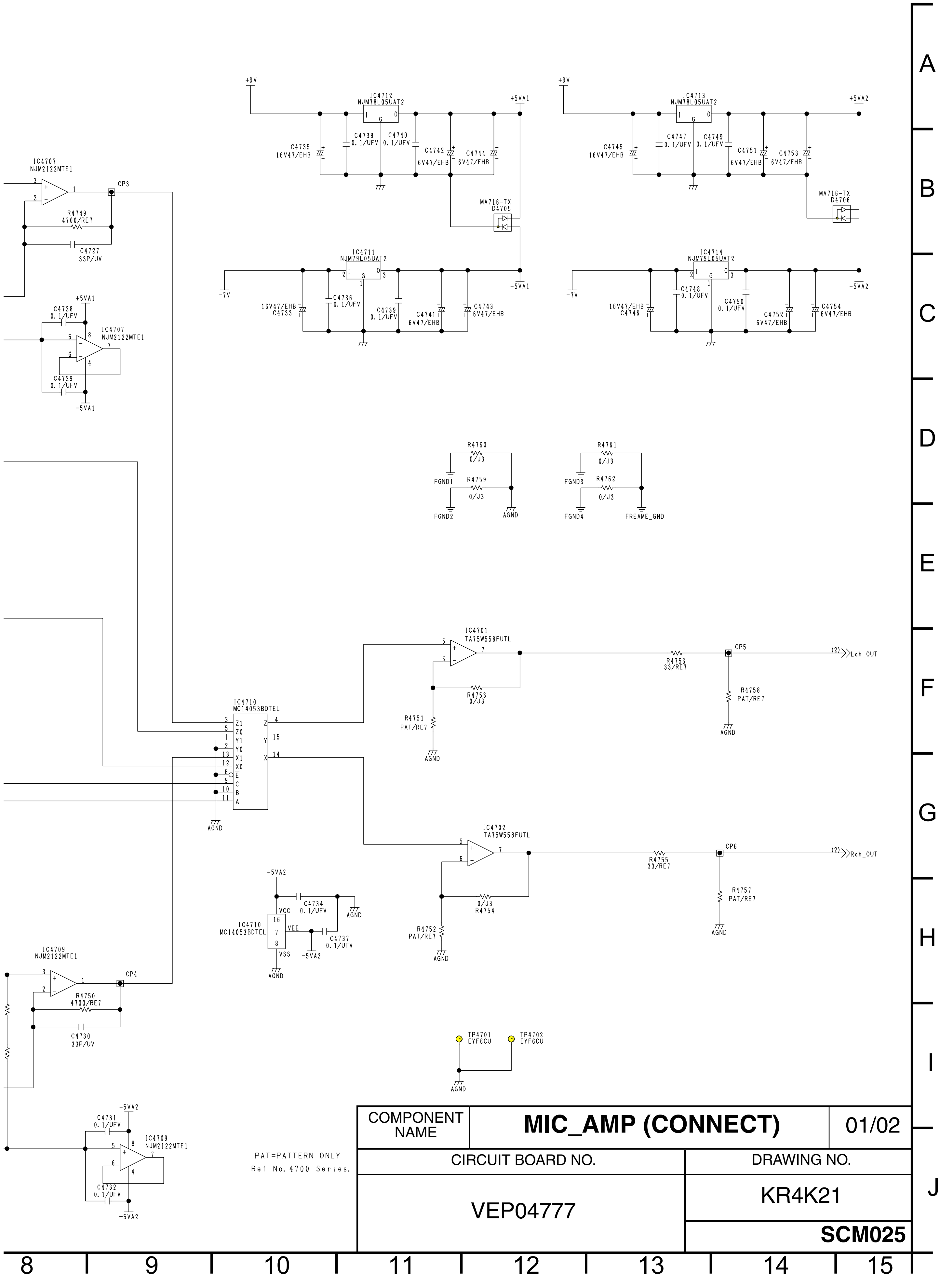


SW4001
K0H1BA000399
SW4002
K0H1BA000105
SW4003
K0H1BA000105
P4001
VJP3950A007D
S/S 1
SCAN2 2
GND 3
GND 4
ZOOM_AD 5
VREF_2.7V 6
VREF_1.0V 7
1
2
4
1
3
2
4
1
3
2

Ref No.4000 series.

COMPONENT NAME	**HANDLE_ZOOM**	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000T7	KR0Q06	
	SCM024	

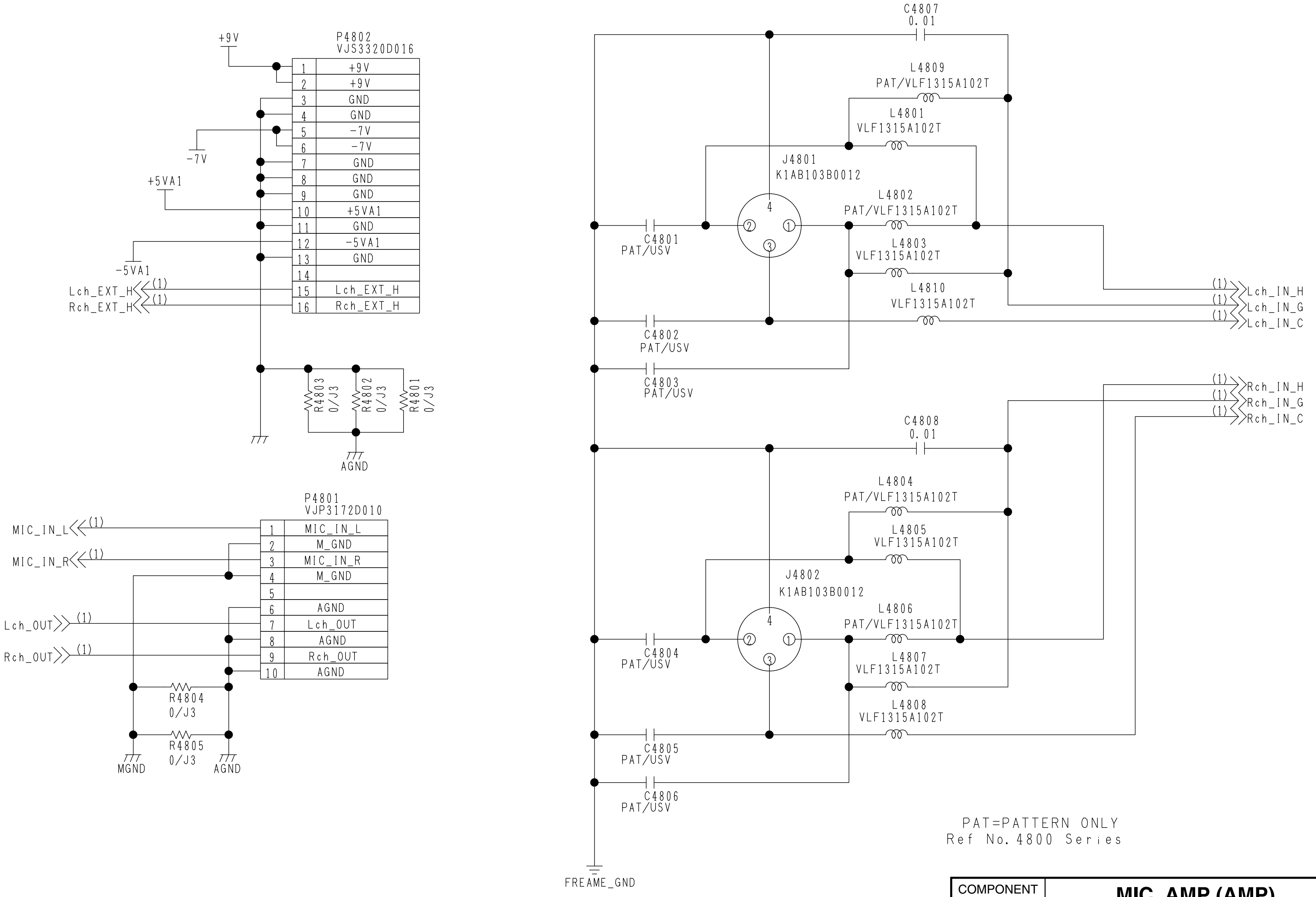

Lch_IN_H
Lch_IN_C
Lch_IN_G
L4701 10U/LA
R4701 PAT/J3
L4702 10U/LA
R4702 PAT/J3
C4701 470P/UV
C4702 470P/UV
R4703 0/J3
R4707 0/J3
AGND
R4711 27K/RE7
R4712 27K/RE7
R4715 3300/RE7
R4716 3300/RE7
SW4701 K0D142B00022
C4709 50V10/EHB
C4710 50V10/EHB
R4724 3900/RE7
R4727 10K/RE7
R4728 10K/RE7
+5VA1
-5VA1
D4701 MA143-GTX
D4702 MA143-GTX
R4733 PAT/RE7
R4735 240/RE7
C4719 0.1/UFV
C4720 0.1/UFV
IC4705 NJM2122MTE1
R4737 4700/RE7
C4723 33P/UV
R4738 4700/RE7
C4724 33P/UV
R4741 4700/RE7
R4742 4700/RE7
R4745 4700/RE7
R4746 0/J3
MIC_IN_L
C4705 16V10/EHB
CP1
R4719 10K/RE7
IC4701 TA75W558FUTL
C4707 0.1/UFV
C4708 0.1/UFV
R4720 3300/RE7
R4723 4700/RE7
MIC_IN_R
C4706 16V10/EHB
CP2
R4726 10K/RE7
IC4702 TA75W558FUTL
+5VA2
-5VA2
C4713 0.1/UFV
C4714 0.1/UFV
R4731 3300/RE7
R4732 4700/RE7
R4708 10K/J3
R4710 10K/J3
Lch_EXT_H
Rch_EXT_H
Rch_IN_H
Rch_IN_C
Rch_IN_G
L4703 10U/LA
R4704 PAT/J3
L4704 10U/LA
R4705 PAT/J3
C4703 470P/UV
C4704 470P/UV
R4706 0/J3
R4709 0/J3
R4713 27K/RE7
R4714 27K/RE7
R4717 3300/RE7
R4718 3300/RE7
SW4702 K0D142B00022
C4711 50V10/EHB
C4712 50V10/EHB
R4725 3900/RE7
R4729 10K/RE7
R4730 10K/RE7
D4703 MA143-GTX
D4704 MA143-GTX
R4734 PAT/RE7
R4736 240/RE7
C4721 0.1/UFV
C4722 0.1/UFV
IC4706 NJM2122MTE1
R4739 4700/RE7
C4725 33P/UV
R4740 4700/RE7
C4726 33P/UV
R4743 4700/RE7
R4744 4700/RE7
R4747 4700/RE7
R4748 0/J3
(2)
(9)
1
2
3
4
5
6
7
8



+9V
IC4712
NJM78L05UAT2
I
G
O
+5VA1
C4735
16V47/EHB
C4738
0.1/UFV
C4740
0.1/UFV
C4742
6V47/EHB
C4744
6V47/EHB
MA716-TX
D4705
IC4711
NJM79L05UAT2
-7V
-5VA1
C4733
16V47/EHB
C4736
0.1/UFV
C4739
0.1/UFV
C4741
6V47/EHB
C4743
6V47/EHB
+9V
IC4713
NJM78L05UAT2
+5VA2
C4745
16V47/EHB
C4747
0.1/UFV
C4749
0.1/UFV
C4751
6V47/EHB
C4753
6V47/EHB
MA716-TX
D4706
IC4714
NJM79L05UAT2
-7V
-5VA2
C4746
16V47/EHB
C4748
0.1/UFV
C4750
0.1/UFV
C4752
6V47/EHB
C4754
6V47/EHB
IC4707
NJM2122MTE1
CP3
R4749
4700/RE7
C4727
33P/UV
+5VA1
C4728
0.1/UFV
IC4707
NJM2122MTE1
C4729
0.1/UFV
-5VA1
R4760
0/J3
FGND1
R4759
0/J3
FGND2
AGND
R4761
0/J3
FGND3
R4762
0/J3
FGND4
FREAME_GND
IC4701
TA75W558FUTL
R4756
33/RE7
CP5
(2) Lch_OUT
R4758
PAT/RE7
AGND
R4753
0/J3
R4751
PAT/RE7
AGND
IC4710
MC14053BDTEL
Z1
Z0
Y1
Y0
X1
X0
E
C
B
A
Z
Y
X
AGND
IC4702
TA75W558FUTL
R4755
33/RE7
CP6
(2) Rch_OUT
R4757
PAT/RE7
AGND
R4754
0/J3
R4752
PAT/RE7
AGND
+5VA2
C4734
0.1/UFV
AGND
IC4710
MC14053BDTEL
VCC
VEE
VSS
C4737
0.1/UFV
-5VA2
AGND
IC4709
NJM2122MTE1
CP4
R4750
4700/RE7
C4730
33P/UV
TP4701
EYF6CU
TP4702
EYF6CU
AGND
+5VA2
C4731
0.1/UFV
IC4709
NJM2122MTE1
C4732
0.1/UFV
-5VA2
A
B
C
D
E
F
G
H
I
J
8
9
10
11
12
13
14
15

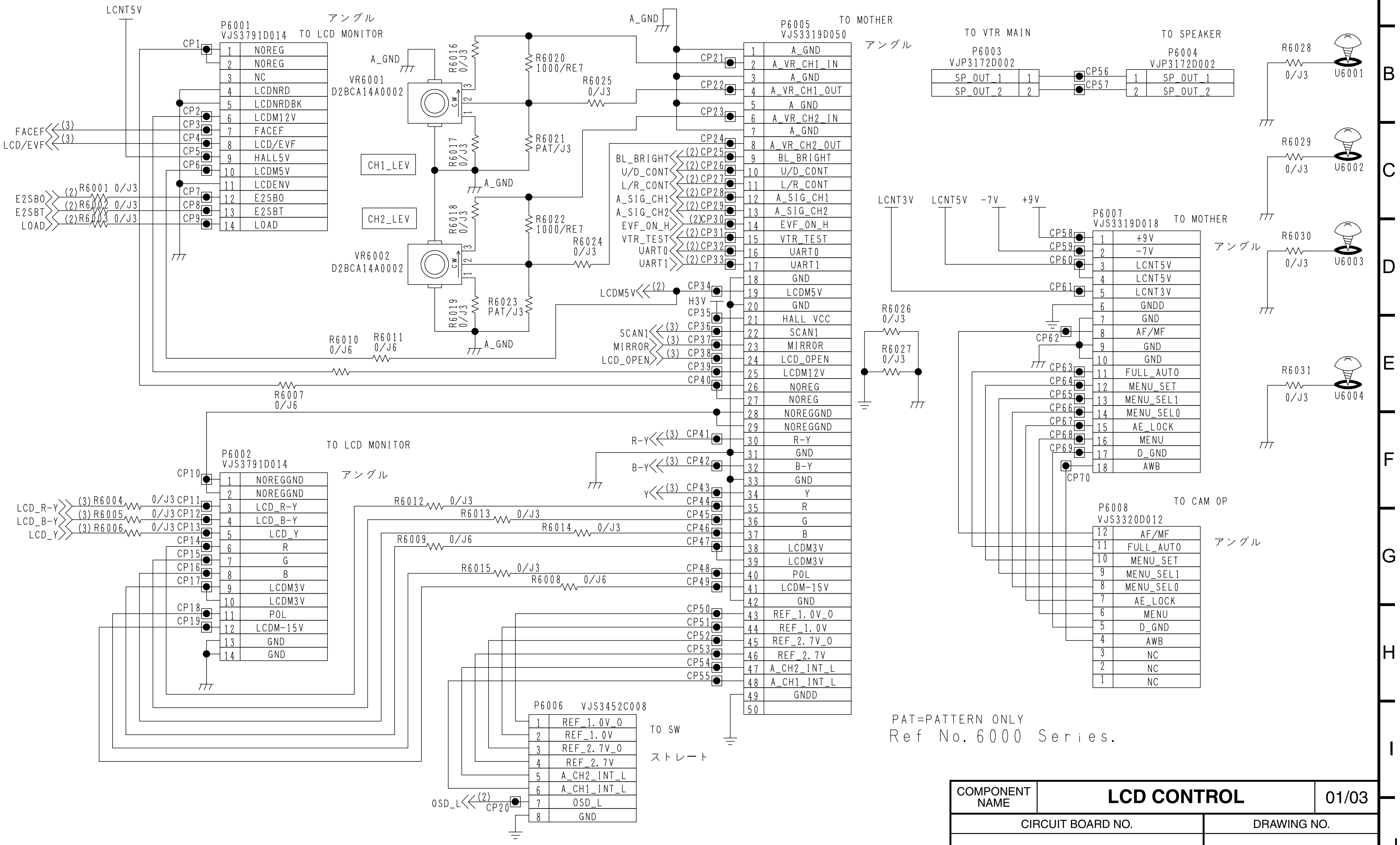
PAT=PATTERN ONLY
Ref No.4700 Series.

COMPONENT NAME	**MIC_AMP (CONNECT)**	01/02
CIRCUIT BOARD NO.	DRAWING NO.	
VEP04777	KR4K21 **SCM025**	


+9V
P4802
VJS3320D016
1 +9V
2 +9V
3 GND
4 GND
5 -7V
6 -7V
7 GND
8 GND
9 GND
10 +5VA1
11 GND
12 -5VA1
13 GND
14
15 Lch_EXT_H
16 Rch_EXT_H
-7V
+5VA1
-5VA1
Lch_EXT_H (1)
Rch_EXT_H (1)
R4803 0/J3
R4802 0/J3
R4801 0/J3
AGND
P4801
VJP3172D010
1 MIC_IN_L
2 M_GND
3 MIC_IN_R
4 M_GND
5
6 AGND
7 Lch_OUT
8 AGND
9 Rch_OUT
10 AGND
MIC_IN_L (1)
MIC_IN_R (1)
Lch_OUT (1)
Rch_OUT (1)
R4804 0/J3
R4805 0/J3
MGND
AGND
C4807 0.01
L4809 PAT/VLF1315A102T
L4801 VLF1315A102T
J4801 K1AB103B0012
4
2
1
3
L4802 PAT/VLF1315A102T
C4801 PAT/USV
L4803 VLF1315A102T
L4810 VLF1315A102T
(1) Lch_IN_H
(1) Lch_IN_G
(1) Lch_IN_C
C4802 PAT/USV
C4803 PAT/USV
(1) Rch_IN_H
(1) Rch_IN_G
(1) Rch_IN_C
C4808 0.01
L4804 PAT/VLF1315A102T
L4805 VLF1315A102T
J4802 K1AB103B0012
L4806 PAT/VLF1315A102T
C4804 PAT/USV
L4807 VLF1315A102T
L4808 VLF1315A102T
C4805 PAT/USV
C4806 PAT/USV
FREAME_GND

PAT=PATTERN ONLY
Ref No.4800 Series

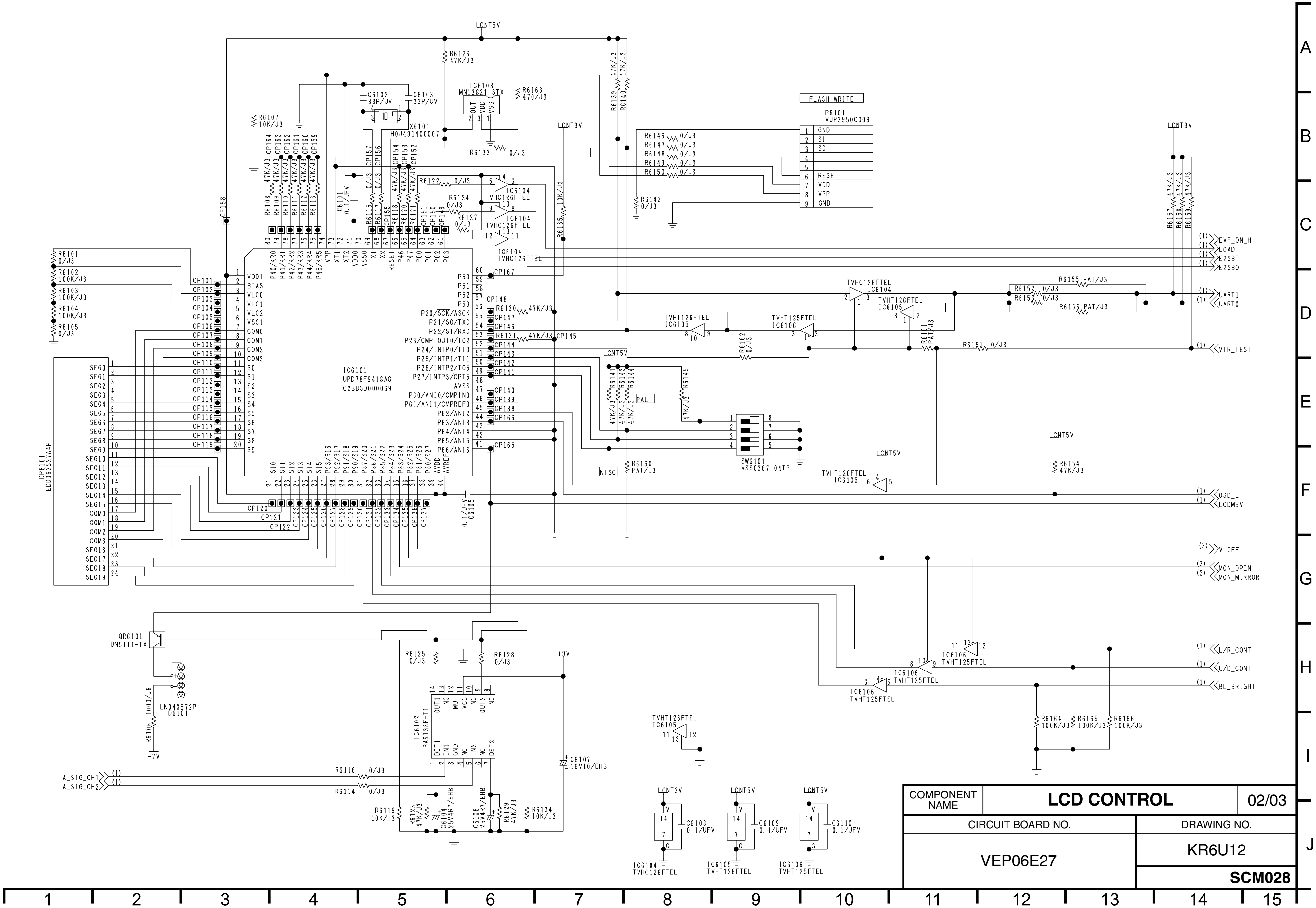
COMPONENT NAME	MIC_AMP (AMP)	02/02
CIRCUIT BOARD NO.	DRAWING NO.	
VEP04777	KR4K21	
	SCM026	


LCNT5V
P6001
VJS3791D014
アングル
TO LCD MONITOR
CP1
1 NOREG
2 NOREG
3 NC
4 LCDNRD
5 LCDNRDBK
6 LCDM12V
7 FACEF
8 LCD/EVF
9 HALL5V
10 LCDM5V
11 LCDENV
12 E2SBO
13 E2SBT
14 LOAD
CP2
CP3
CP4
CP5
CP6
CP7
CP8
CP9
FACEF (3)
LCD/EVF (3)
E2SBO (2) R6001 0/J3
E2SBT (2) R6002 0/J3
LOAD (2) R6003 0/J3
A_GND
VR6001
D2BCA14A0002
R6016 0/J3
R6020 1000/RE7
R6025 0/J3
R6021 PAT/J3
R6017 0/J3
A_GND
CH1_LEV
CH2_LEV
R6018 0/J3
R6022 1000/RE7
R6024 0/J3
VR6002
D2BCA14A0002
R6019 0/J3
R6023 PAT/J3
A_GND
CW
R6010 0/J6
R6011 0/J6
R6007 0/J6
A_GND
P6005
VJS3319D050
TO MOTHER
アングル
1 A_GND
2 A_VR_CH1_IN
3 A_GND
4 A_VR_CH1_OUT
5 A_GND
6 A_VR_CH2_IN
7 A_GND
8 A_VR_CH2_OUT
9 BL_BRIGHT
10 U/D_CONT
11 L/R_CONT
12 A_SIG_CH1
13 A_SIG_CH2
14 EVF_ON_H
15 VTR_TEST
16 UART0
17 UART1
18 GND
19 LCDM5V
20 GND
21 HALL VCC
22 SCAN1
23 MIRROR
24 LCD_OPEN
25 LCDM12V
26 NOREG
27 NOREG
28 NOREGGND
29 NOREGGND
30 R-Y
31 GND
32 B-Y
33 GND
34 Y
35 R
36 G
37 B
38 LCDM3V
39 LCDM3V
40 POL
41 LCDM-15V
42 GND
43 REF_1.0V_O
44 REF_1.0V
45 REF_2.7V_O
46 REF_2.7V
47 A_CH2_INT_L
48 A_CH1_INT_L
49 GNDD
50
CP21
CP22
CP23
CP24
BL_BRIGHT (2) CP25
U/D_CONT (2) CP26
L/R_CONT (2) CP27
A_SIG_CH1 (2) CP28
A_SIG_CH2 (2) CP29
EVF_ON_H (2) CP30
VTR_TEST (2) CP31
UART0 (2) CP32
UART1 (2) CP33
LCDM5V (2) CP34
H3V
CP35
SCAN1 (3) CP36
MIRROR (3) CP37
LCD_OPEN (3) CP38
CP39
CP40
R-Y (3) CP41
B-Y (3) CP42
Y (3) CP43
CP44
CP45
CP46
CP47
CP48
CP49
CP50
CP51
CP52
CP53
CP54
CP55
P6002
VJS3791D014
TO LCD MONITOR
アングル
CP10
1 NOREGGND
2 NOREGGND
3 LCD_R-Y
4 LCD_B-Y
5 LCD_Y
6 R
7 G
8 B
9 LCDM3V
10 LCDM3V
11 POL
12 LCDM-15V
13 GND
14 GND
LCD_R-Y (3) R6004 0/J3 CP11
LCD_B-Y (3) R6005 0/J3 CP12
LCD_Y (3) R6006 0/J3 CP13
CP14
CP15
CP16
CP17
CP18
CP19
R6012 0/J3
R6013 0/J3
R6014 0/J3
R6009 0/J6
R6015 0/J3
R6008 0/J6
P6006 VJS3452C008
TO SW
ストレート
1 REF_1.0V_O
2 REF_1.0V
3 REF_2.7V_O
4 REF_2.7V
5 A_CH2_INT_L
6 A_CH1_INT_L
7 OSD_L
8 GND
OSD_L (2) CP20
TO VTR MAIN
P6003
VJP3172D002
SP_OUT_1 1
SP_OUT_2 2
CP56
CP57
TO SPEAKER
P6004
VJP3172D002
1 SP_OUT_1
2 SP_OUT_2
R6028 0/J3
U6001
R6029 0/J3
U6002
R6030 0/J3
U6003
R6031 0/J3
U6004
LCNT3V
LCNT5V
-7V
+9V
P6007
VJS3319D018
TO MOTHER
アングル
1 +9V
2 -7V
3 LCNT5V
4 LCNT5V
5 LCNT3V
6 GNDD
7 GND
8 AF/MF
9 GND
10 GND
11 FULL_AUTO
12 MENU_SET
13 MENU_SEL1
14 MENU_SEL0
15 AE_LOCK
16 MENU
17 D_GND
18 AWB
CP58
CP59
CP60
CP61
CP62
CP63
CP64
CP65
CP66
CP67
CP68
CP69
CP70
R6026 0/J3
R6027 0/J3
P6008
VJS3320D012
TO CAM OP
アングル
12 AF/MF
11 FULL_AUTO
10 MENU_SET
9 MENU_SEL1
8 MENU_SEL0
7 AE_LOCK
6 MENU
5 D_GND
4 AWB
3 NC
2 NC
1 NC

PAT=PATTERN ONLY

Ref No.6000 Series.

COMPONENT NAME	**LCD CONTROL**	01/03
CIRCUIT BOARD NO.	DRAWING NO.	
VEP06E27	KR6U12 **SCM027**	


LCNT5V
LCNT3V
R6126 47K/J3
IC6103 MN13821-STX
R6163 470/J3
C6102 33P/UV
C6103 33P/UV
X6101 H0J491400007
R6107 10K/J3
R6133 0/J3
FLASH WRITE
P6101 VJP3950C009
1 GND
2 SI
3 SO
4
5
6 RESET
7 VDD
8 VPP
9 GND
R6146 0/J3
R6147 0/J3
R6148 0/J3
R6149 0/J3
R6150 0/J3
R6142 0/J3
R6139 47K/J3
R6140 47K/J3
R6135 10K/J3
IC6104 TVHC126FTEL
R6122 0/J3
R6124 0/J3
R6127 0/J3
C6101 0.1/UFV
CP158
R6101 0/J3
R6102 100K/J3
R6103 100K/J3
R6104 100K/J3
R6105 0/J3
IC6101 UPD78F9418AG C2BBGD000069
VDD1
BIAS
VLC0
VLC1
VLC2
VSS1
COM0
COM1
COM2
COM3
S0
S1
S2
S3
S4
S5
S6
S7
S8
S9
P40/KR0
P41/KR1
P42/KR2
P43/KR3
P44/KR4
P45/KR5
VPP
XT1
XT2
VDD0
VSS0
X1
X2
RESET
P46
P47
P00
P01
P02
P03
P50
P51
P52
P53
P20/SCK/ASCK
P21/SO/TXD
P22/SI/RXD
P23/CMPTOUT0/TO2
P24/INTP0/TI0
P25/INTP1/TI1
P26/INTP2/TO5
P27/INTP3/CPT5
AVSS
P60/ANI0/CMPIN0
P61/ANI1/CMPREF0
P62/ANI2
P63/ANI3
P64/ANI4
P65/ANI5
P66/ANI6
AVDD
AVREF
DP6101 EDD063S27A4P
SEG0
SEG1
SEG2
SEG3
SEG4
SEG5
SEG6
SEG7
SEG8
SEG9
SEG10
SEG11
SEG12
SEG13
SEG14
SEG15
COM0
COM1
COM2
COM3
SEG16
SEG17
SEG18
SEG19
R6130 47K/J3
R6131 47K/J3
CP145
R6141 47K/J3
R6143 47K/J3
R6144 47K/J3
R6145 47K/J3
PAL
NTSC
R6160 PAT/J3
SW6101 VSS0367-04TB
R6162 0/J3
R6161 PAT/J3
R6151 0/J3
R6152 0/J3
R6153 0/J3
R6155 PAT/J3
R6156 PAT/J3
R6157 47K/J3
R6158 47K/J3
R6159 47K/J3
R6154 47K/J3
IC6105 TVHT126FTEL
IC6106 TVHT125FTEL
C6105 0.1/UFV
EVF_ON_H
LOAD
E2SBT
E2SBO
UART1
UART0
VTR_TEST
OSD_L
LCDM5V
V_OFF
MON_OPEN
MON_MIRROR
L/R_CONT
U/D_CONT
BL_BRIGHT
R6164 100K/J3
R6165 100K/J3
R6166 100K/J3
QR6101 UN5111-TX
LN043572P D6101
R6106 1000/J6
-7V
IC6102 BA6138F-T1
OUT1
NC
MUT
VCC
OUT2
DET1
IN1
GND
IN2
DET2
R6125 0/J3
R6128 0/J3
+9V
C6107 16V10/EHB
R6116 0/J3
R6114 0/J3
A_SIG_CH1
A_SIG_CH2
R6119 10K/J3
R6123 47K/J3
C6104 25V4R7/EHB
C6106 25V4R7/EHB
R6129 47K/J3
R6134 10K/J3
C6108 0.1/UFV
C6109 0.1/UFV
C6110 0.1/UFV
IC6104 TVHC126FTEL
IC6105 TVHT126FTEL
IC6106 TVHT125FTEL
A
B
C
D
E
F
G
H
I
J
1
2
3
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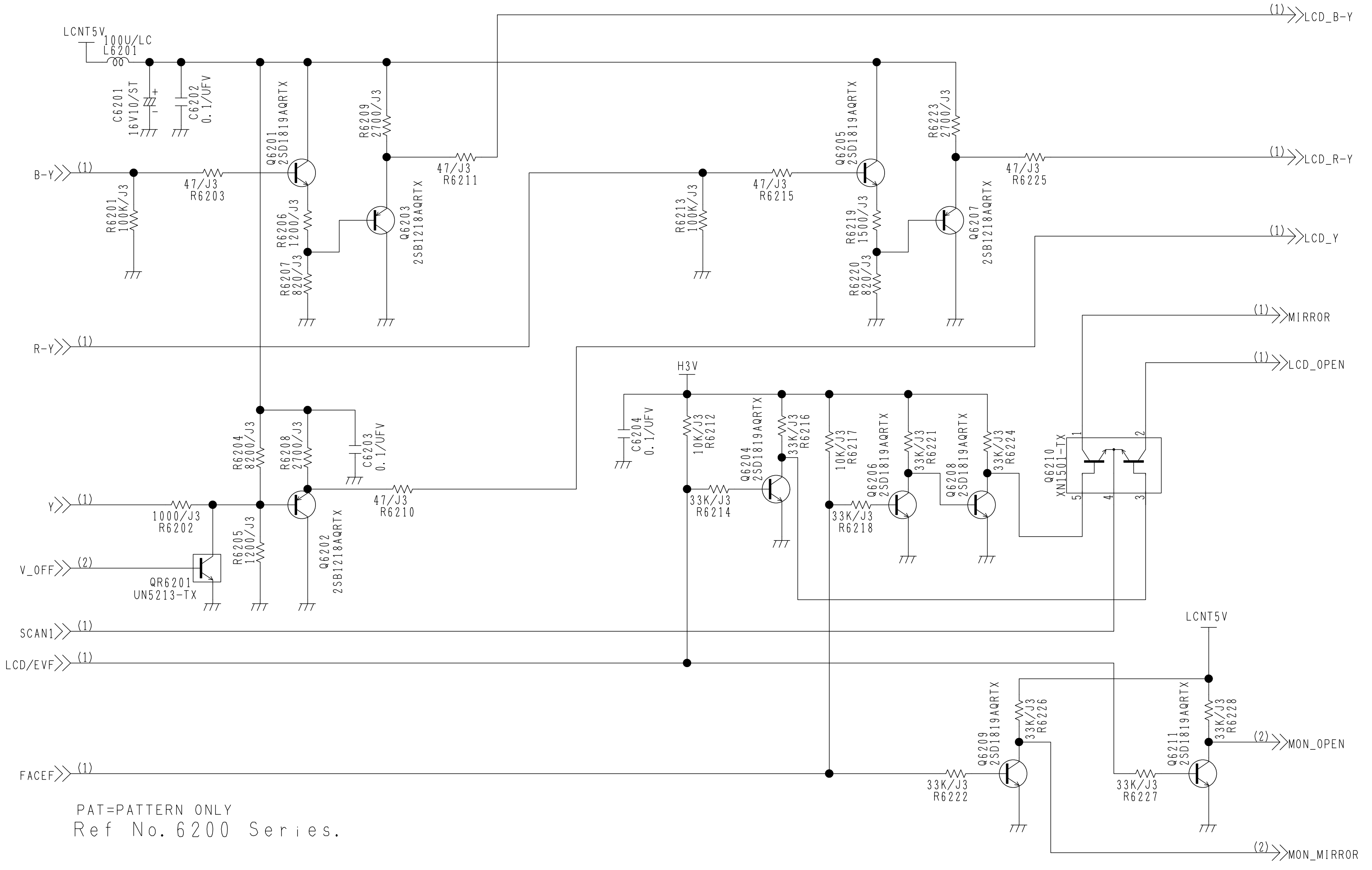
15

COMPONENT NAME	LCD CONTROL	02/03
CIRCUIT BOARD NO.	DRAWING NO.	
VEP06E27	KR6U12	
	SCM028	


LCNT5V
100U/LC
L6201
C6201
16V10/ST
C6202
0.1/UFV
Q6201
2SD1819AQRTX
R6209
2700/J3
R6211
47/J3
(1)
LCD_B-Y
B-Y
(1)
R6201
100K/J3
47/J3
R6203
R6206
1200/J3
Q6203
2SB1218AQRTX
R6207
820/J3
R-Y
(1)
R6213
100K/J3
47/J3
R6215
Q6205
2SD1819AQRTX
R6219
1500/J3
R6220
820/J3
R6223
2700/J3
47/J3
R6225
Q6207
2SB1218AQRTX
(1)
LCD_R-Y
(1)
LCD_Y
(1)
MIRROR
(1)
LCD_OPEN
H3V
C6204
0.1/UFV
10K/J3
R6212
Q6204
2SD1819AQRTX
33K/J3
R6216
33K/J3
R6214
10K/J3
R6217
Q6206
2SD1819AQRTX
33K/J3
R6221
33K/J3
R6218
Q6208
2SD1819AQRTX
33K/J3
R6224
Q6210
XN1501-TX
1
2
5
4
3
R6204
8200/J3
R6208
2700/J3
C6203
0.1/UFV
Y
(1)
1000/J3
R6202
47/J3
R6210
R6205
1200/J3
Q6202
2SB1218AQRTX
V_OFF
(2)
QR6201
UN5213-TX
SCAN1
(1)
LCD/EVF
(1)
LCNT5V
FACEF
(1)
Q6209
2SD1819AQRTX
33K/J3
R6226
33K/J3
R6222
Q6211
2SD1819AQRTX
33K/J3
R6228
33K/J3
R6227
(2)
MON_OPEN
(2)
MON_MIRROR
PAT=PATTERN ONLY
Ref No.6200 Series.

COMPONENT NAME	LCD CONTROL	03/03
CIRCUIT BOARD NO.		DRAWING NO.
VEP06E27		KR6U12
		SCM029

A
B
C
D
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G
H
I
J
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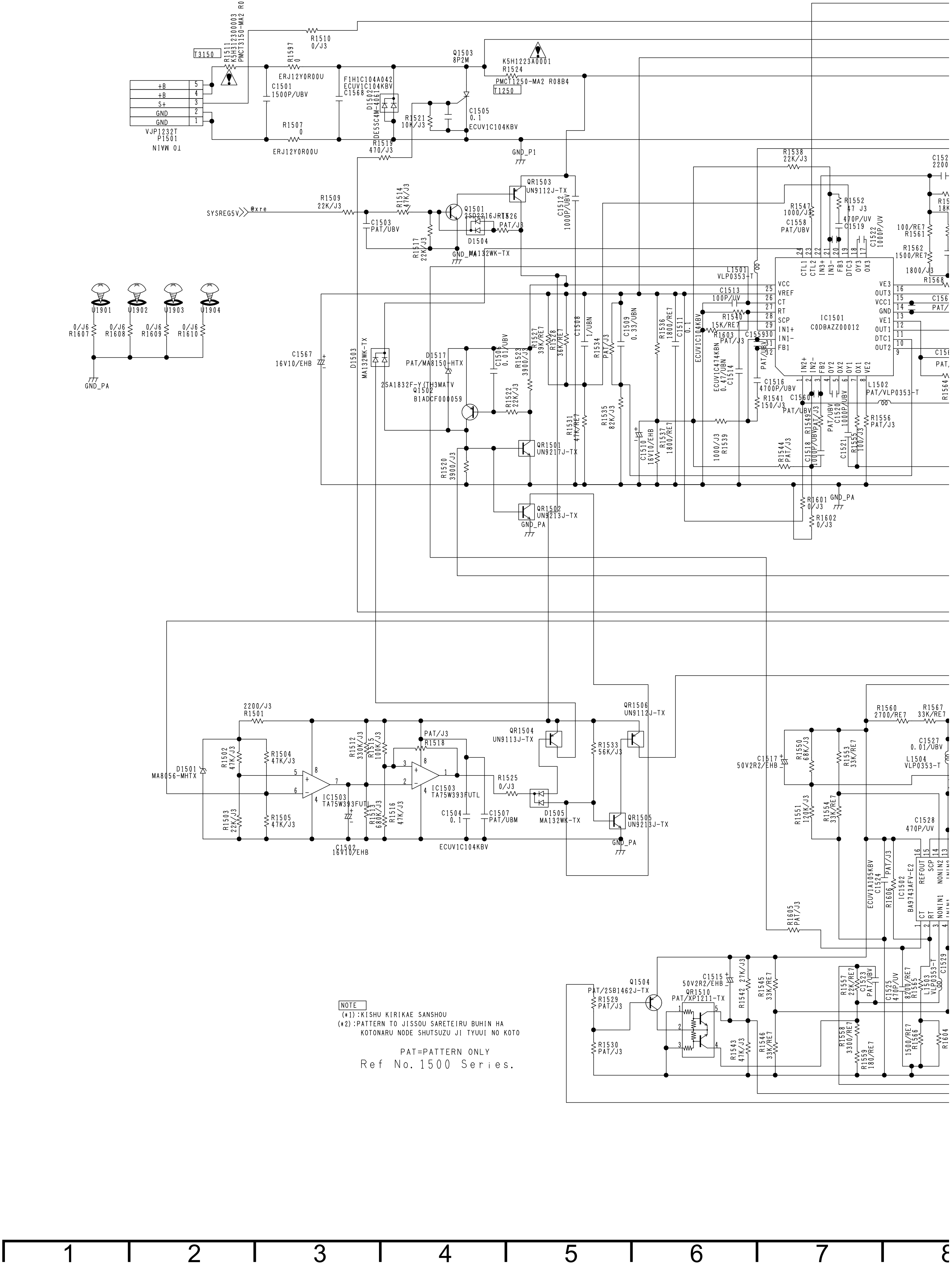
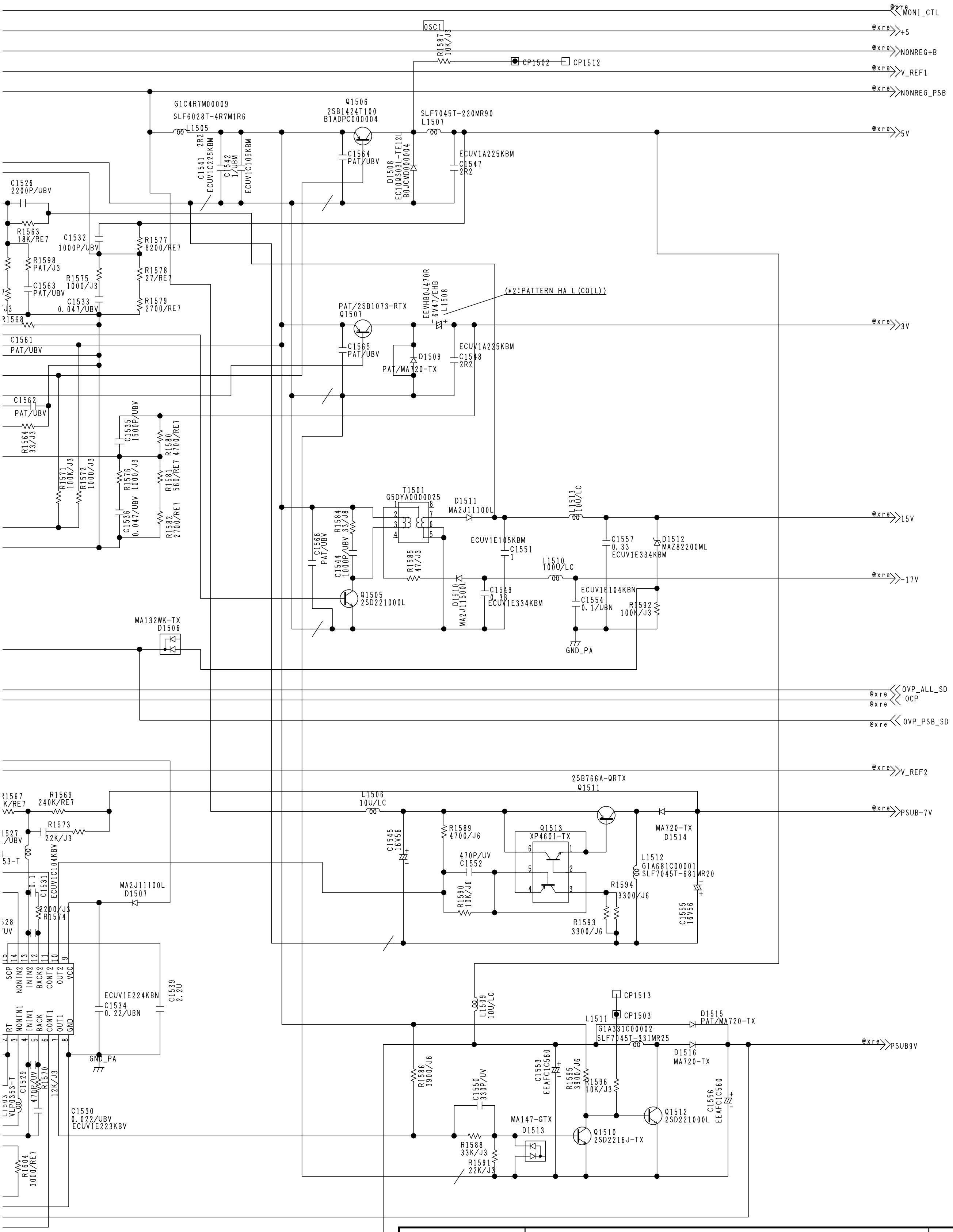


T3150
R1511 K5H3123000003 PMCT3150-MA2 R08B4
R1510 0/J3
R1597 0
ERJ12Y0R00U
C1501 1500P/UBV
R1507 0
ERJ12Y0R00U
+B 5
+B 4
S+ 3
GND 2
GND 1
VJP1232T P1501
TO MAIN
F1H1C104A042 ECUV1C104KBV C1568
D1502 DE5SC4M-4061
Q1503 8P2M
K5H1223A0001 R1524 PMCT1250-MA2 R08B4
T1250
C1505 0.1 ECUV1C104KBV
R1521 10K/J3
R1519 470/J3
GND_P1
SYSREG5V @xre
R1509 22K/J3
R1514 47K/J3
C1503 PAT/UBV
Q1501 2SD2216JRTX
R1526 PAT/J3
D1504 MA132WK-TX
R1517 22K/J3
GND_PA
QR1503 UN9112J-TX
C1512 1000P/UBV
U1901 U1902 U1903 U1904
0/J6 R1607
0/J6 R1608
0/J6 R1609
0/J6 R1610
GND_PA
C1567 16V10/EHB
D1503 MA132WK-TX
D1517 PAT/MA8150-HTX
2SA1832F-Y(TH3MATV
Q1502 B1ADCF000059
C1506 0.01/UBV
R1522 22K/J3
R1523 3900/J3
R1527 39K/RE7
R1528 36K/RE7
C1508 1/UBN
R1534 PAT/J3
C1509 0.33/UBN
R1536 1800/RE7
C1511 0.1
ECUV1C104KBV
QR1501 UN9217J-TX
R1520 3900/J3
R1531 47K/RE7
R1535 82K/J3
C1510 16V10/EHB
R1537 1800/RE7
QR1502 UN9213J-TX
GND_PA
L1501 VLP0353-T
C1513 100P/UV
R1540 15K/RE7
R1603 PAT/J3
C1559 PAT/UBV
ECUV1C474KBN 0.47/UBN C1514
C1516 4700P/UBV
R1541 150/J3
C1560 PAT/UBV
1000/J3 R1539
R1538 22K/J3
R1547 1000/J3
C1558 PAT/UBV
R1552 47 J3
470P/UV C1519
C1522 1000P/UV
IC1501 C0DBAZZ00012
VCC VREF CT RT SCP IN1+ IN1- FB1
CTL1 CTL2 IN3+ IN3- FB3 DTC3 OY3 OX3
VE3 OUT3 VCC1 GND VE1 OUT1 DTC1 OUT2
IN2+ IN2- FB2 DY2 OX2 OY1 OX1 VE2
L1502 PAT/VLP0353-T
R1549 PAT/J3
C1518 1000P/UBV
C1520 1000P/UBV PAT/UBV
R1555 100/J3
C1521
R1556 PAT/J3
R1544 PAT/J3
R1601 0/J3
R1602 0/J3
GND_PA
100/RE7 R1561
R1562 1500/RE7
1800/J3
R1568
2200/J3 R1501
R1502 47K/J3
R1504 47K/J3
D1501 MA8056-MHTX
R1503 22K/J3
R1505 47K/J3
IC1503 TA75W393FUTL
R1512 330K/J3
R1515 100K/J3
PAT/J3 R1518
IC1503 TA75W393FUTL
R1513 680K/J3
R1516 47K/J3
C1502 16V10/EHB
C1504 0.1
C1507 PAT/UBM
ECUV1C104KBV
R1525 0/J3
D1505 MA132WK-TX
QR1504 UN9113J-TX
QR1506 UN9112J-TX
R1533 56K/J3
QR1505 UN9213J-TX
GND_PA
R1560 2700/RE7
R1567 33K/RE7
C1517 50V2R2/EHB
R1550 68K/J3
R1553 33K/RE7
C1527 0.01/UBV
L1504 VLP0353-T
R1551 120K/J3
R1554 33K/RE7
C1528 470P/UV
ECUV1A105KBV C1524
R1606 PAT/J3
IC1502 BA9743AFV-E2
CT RT NONIN1 REFOUT SCP NONIN2
R1605 PAT/J3
Q1504 PAT/2SB1462J-TX
R1529 PAT/J3
R1530 PAT/J3
C1515 50V2R2/EHB
R1542 27K/J3
QR1510 PAT/XP1211-TX
R1545 33K/RE7
R1543 47K/J3
R1546 33K/RE7
R1557 22K/RE7
C1523 PAT/UBV
C1525 470P/UV
8200/RE7 R1565
L1503 VLP0353-T
C1529
R1558 3300/RE7
R1559 180/RE7
1500/RE7 R1566
R1604
1 2 3 4 5 6 7 8

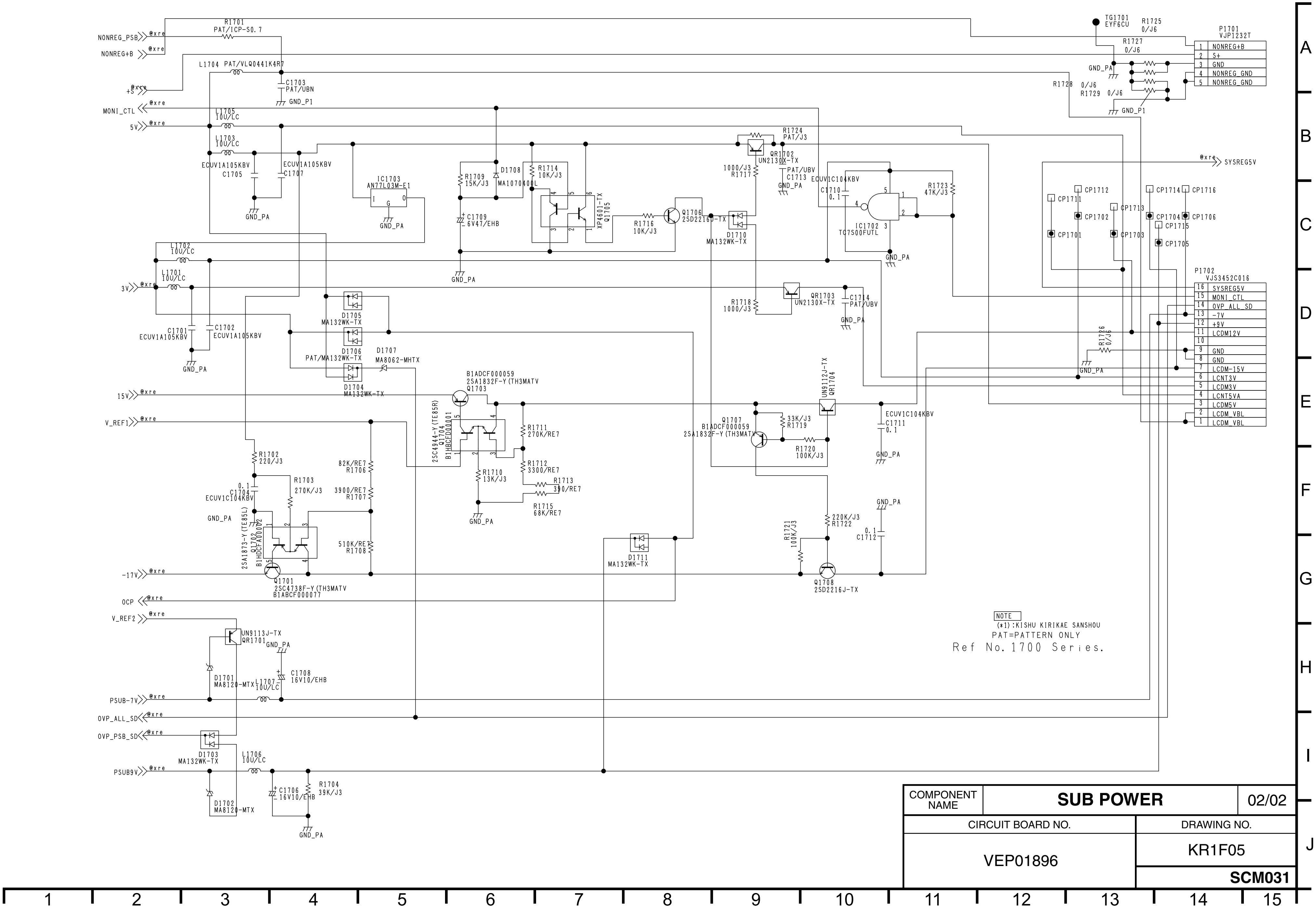
NOTE
(*1):KISHU KIRIKAE SANSHOU
(*2):PATTERN TO JISSOU SARETEIRU BUHIN HA
KOTONARU NODE SHUTSUZU JI TYUUI NO KOTO

PAT=PATTERN ONLY

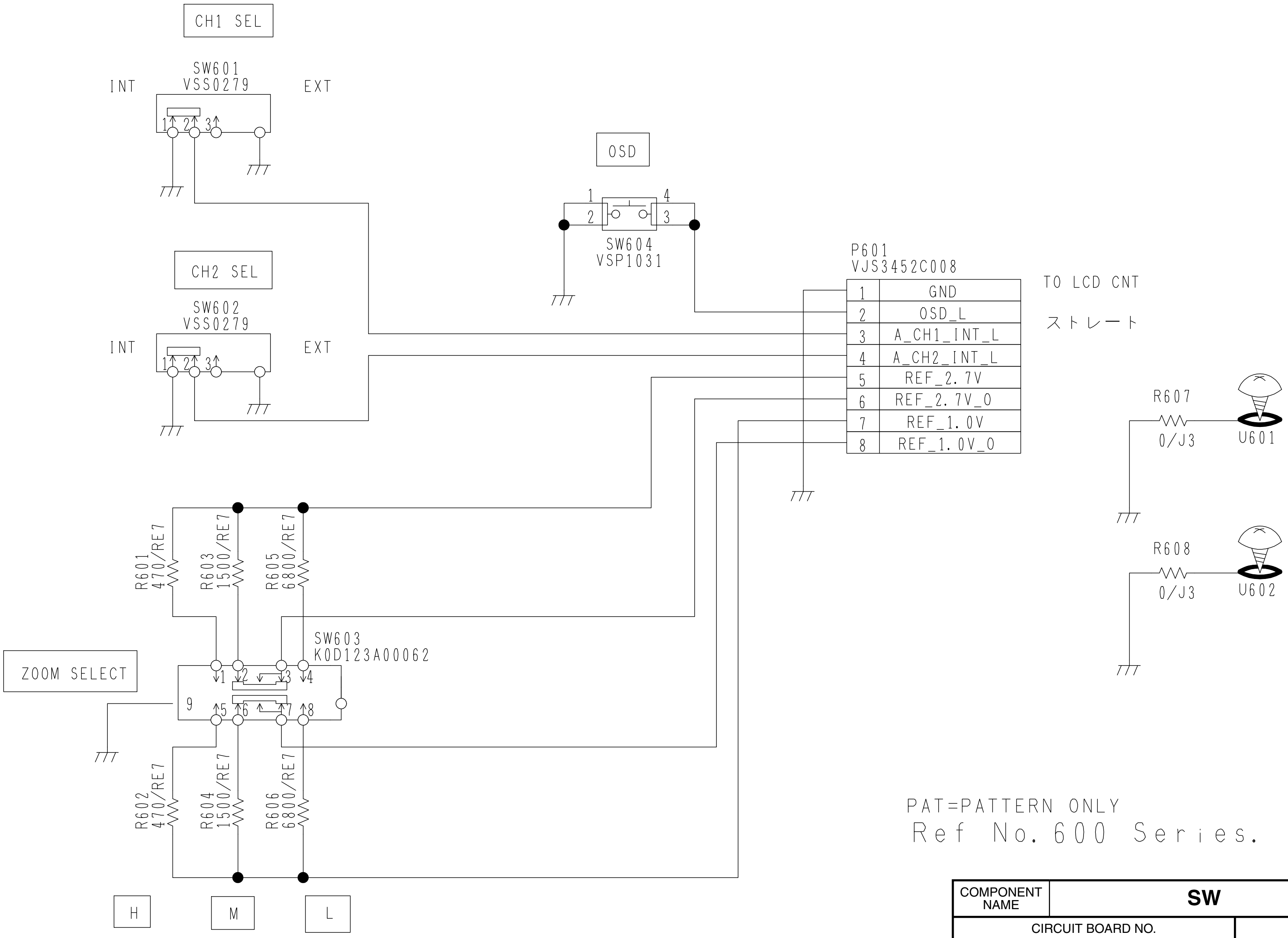
Ref No.1500 Series.


MONI_CTL
+S
NONREG+B
V_REF1
NONREG_PSB
5V
3V
15V
-17V
OVP_ALL_SD
OCP
OVP_PSB_SD
V_REF2
PSUB-7V
PSUB9V
OSC1
R1587 10K/J3
CP1502
CP1512
G1C4R7M00009
SLF6028T-4R7M1R6
L1505
Q1506
2SB1424T100
B1ADPC000004
SLF7045T-220MR90
L1507
C1541 2R2 ECUV1C225KBM
C1542 1/UBM
ECUV1C105KBM
C1564 PAT/UBV
D1508 EC10QS03L-TE12L B0JCMD000004
ECUV1A225KBM
C1547 2R2
C1526 2200P/UBV
R1563 18K/RE7
C1532 1000P/UBV
R1577 8200/RE7
R1598 PAT/J3
R1578 27/RE7
C1563 PAT/UBV
R1575 1000/J3
R1579 2700/RE7
C1533 0.047/UBV
R1568
(*2:PATTERN HA L(COIL))
EEVHB0J470R 6V47/EHB L1508
PAT/2SB1073-RTX Q1507
C1561 PAT/UBV
C1565 PAT/UBV
D1509
PAT/MA720-TX
ECUV1A225KBM
C1548 2R2
C1562 PAT/UBV
R1564 33/J3
C1535 1500P/UBV
R1580 4700/RE7
R1571 100K/J3
R1572 1000/J3
R1576 1000/J3
R1581 560/RE7
C1536 0.047/UBV
R1582 2700/RE7
T1501 G5DYA0000025
D1511 MA2J11100L
L1513 100/LC
C1566 PAT/UBV
R1584 33/J8
C1544 1000P/UBV
R1585 47/J3
ECUV1E105KBM
C1551 1
C1557 0.33 ECUV1E334KBM
D1512 MAZ82200ML
L1510 100U/LC
D1510 MA2J11500L
C1549 0.33 ECUV1E334KBM
ECUV1E104KBN
C1554 0.1/UBN
R1592 100K/J3
Q1505 2SD221000L
MA132WK-TX D1506
GND_PA
R1567 K/RE7
R1569 240K/RE7
R1573 22K/J3
1527 /UBV
53-T
2SB766A-QRTX Q1511
L1506 10U/LC
C1545 16V56
R1589 4700/J6
Q1513 XP4601-TX
470P/UV C1552
D1514 MA720-TX
L1512 G1A681C00001 SLF7045T-681MR20
0.1 C1531 ECUV1C104KBV
MA2J11100L D1507
R1590 10K/J6
R1594 3300/J6
R1593 3300/J6
C1555 16V56
2200/J3 R1574
528 UV
SCP NONIN2 ININ2 BACK2 CONT2 OUT2 VCC
RT NONIN1 ININ1 BACK CONT1 OUT1 GND
ECUV1E224KBN C1534 0.22/UBN
C1539 2.2U
GND_PA
CP1513
CP1503
L1509 10U/LC
L1511 G1A331C00002 SLF7045T-331MR25
D1515 PAT/MA720-TX
D1516 MA720-TX
L1503 VLP0353-T
C1529 470P/UV
R1570 12K/J3
C1530 0.022/UBV ECUV1E223KBV
R1586 3900/J6
C1550 330P/UV
C1553 EEAFC1C560
R1595 3900/J6
R1596 10K/J3
Q1512 2SD221000L
C1556 EEAFC1C560
MA147-GTX D1513
Q1510 2SD2216J-TX
R1588 33K/J3
R1591 22K/J3
R1604 3000/RE7

COMPONENT NAME	SUB POWER	01/02
CIRCUIT BOARD NO.	DRAWING NO.	
VEP01896	KR1F05	
	SCM030	


NONREG_PSB
NONREG+B
+5
MONI_CTL
5V
3V
15V
V_REF1
-17V
OCP
V_REF2
PSUB-7V
OVP_ALL_SD
OVP_PSB_SD
PSUB9V
SYSREG5V
R1701 PAT/ICP-S0.7
L1704 PAT/VLQ0441K4R7
C1703 PAT/UBN
GND_P1
L1705 10U/LC
L1703 10U/LC
ECUV1A105KBV C1705
ECUV1A105KBV C1707
GND_PA
IC1703 AN77L03M-E1
R1709 15K/J3
D1708 MA1070400L
R1714 10K/J3
C1709 6V47/EHB
XP4601-TX Q1705
R1716 10K/J3
Q1706 2SD2216J-TX
D1710 MA132WK-TX
R1724 PAT/J3
QR1702 UN2130X-TX
1000/J3 R1717
PAT/UBV C1713
ECUV1C104KBV
C1710 0.1
IC1702 TC7S00FUTL
R1723 47K/J3
L1702 10U/LC
L1701 10U/LC
C1701 ECUV1A105KBV
C1702 ECUV1A105KBV
D1705 MA132WK-TX
D1706 PAT/MA132WK-TX
D1707 MA8062-MHTX
D1704 MA132WK-TX
R1718 1000/J3
QR1703 UN2130X-TX
C1714 PAT/UBV
B1ADCF000059 2SA1832F-Y(TH3MATV Q1703
2SC4944-Y(TE85R) Q1704 B1HBCFD00001
R1711 270K/RE7
R1712 3300/RE7
R1713 390/RE7
R1715 68K/RE7
R1710 13K/J3
82K/RE7 R1706
3900/RE7 R1707
510K/RE7 R1708
R1702 220/J3
0.1 C1704 ECUV1C104KBV
R1703 270K/J3
2SA1873-Y(TE85L) Q1702 B1HDCFA00002
Q1701 2SC4738F-Y(TH3MATV B1ABCF000077
D1711 MA132WK-TX
Q1707 B1ADCF000059 2SA1832F-Y(TH3MATV
33K/J3 R1719
R1720 100K/J3
UN9112J-TX QR1704
ECUV1C104KBV C1711 0.1
R1721 100K/J3
220K/J3 R1722
0.1 C1712
Q1708 2SD2216J-TX
UN9113J-TX QR1701
C1708 16V10/EHB
D1701 MA8120-MTX
L1707 10U/LC
D1703 MA132WK-TX
L1706 10U/LC
C1706 16V10/EHB
R1704 39K/J3
D1702 MA8120-MTX
TG1701 EYF6CU
R1725 0/J6
R1727 0/J6
R1728 0/J6
R1729 0/J6
R1726 0/J6
P1701 VJP1232T
1 NONREG+B
2 S+
3 GND
4 NONREG_GND
5 NONREG_GND
CP1711 CP1712 CP1702 CP1713 CP1701 CP1703 CP1714 CP1716 CP1704 CP1706 CP1715 CP1705
P1702 VJS3452C016
16 SYSREG5V
15 MONI_CTL
14 OVP_ALL_SD
13 -7V
12 +9V
11 LCDM12V
10
9 GND
8 GND
7 LCDM-15V
6 LCNT3V
5 LCDM3V
4 LCNT5VA
3 LCDM5V
2 LCDM_VBL
1 LCDM_VBL
@xre
NOTE
(*1):KISHU KIRIKAE SANSHOU
PAT=PATTERN ONLY
Ref No.1700 Series.
A B C D E F G H I J
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

COMPONENT NAME	SUB POWER	02/02
CIRCUIT BOARD NO.	DRAWING NO.	
VEP01896	KR1F05	
	SCM031	


CH1 SEL
SW601
VSS0279
INT
EXT
1
2
3
OSD
1
4
2
3
SW604
VSP1031
CH2 SEL
SW602
VSS0279
INT
EXT
1
2
3
P601
VJS3452C008
1 GND
2 OSD_L
3 A_CH1_INT_L
4 A_CH2_INT_L
5 REF_2.7V
6 REF_2.7V_O
7 REF_1.0V
8 REF_1.0V_O
TO LCD CNT
ストレート
R607
0/J3
U601
R608
0/J3
U602
R601
470/RE7
R603
1500/RE7
R605
6800/RE7
SW603
K0D123A00062
ZOOM SELECT
1
2
3
4
9
5
6
7
8
R602
470/RE7
R604
1500/RE7
R606
6800/RE7
H
M
L

PAT=PATTERN ONLY
Ref No.600 Series.

COMPONENT NAME	SW	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000T9	KR0Q62	
	SCM032	

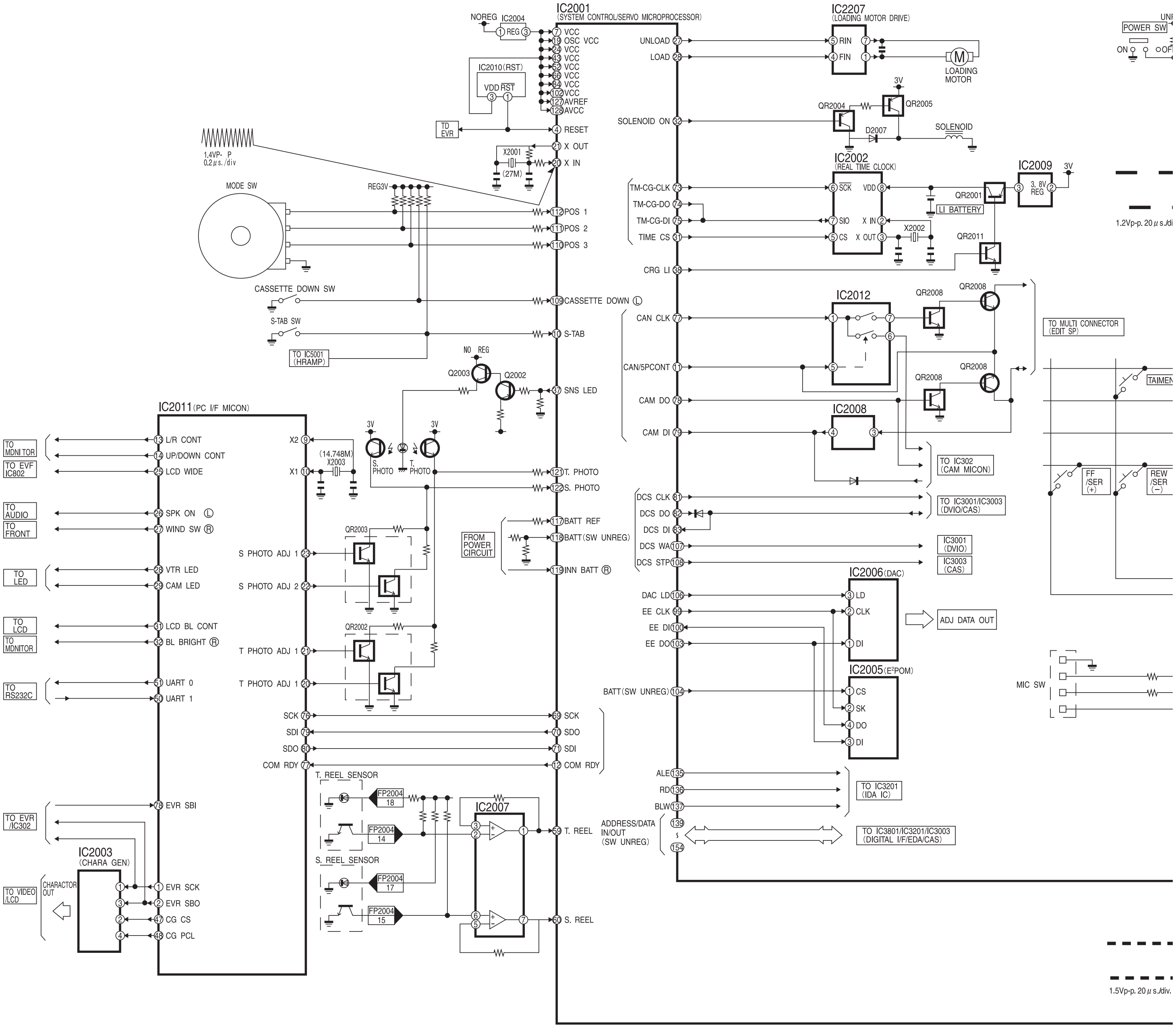
SECTION 6

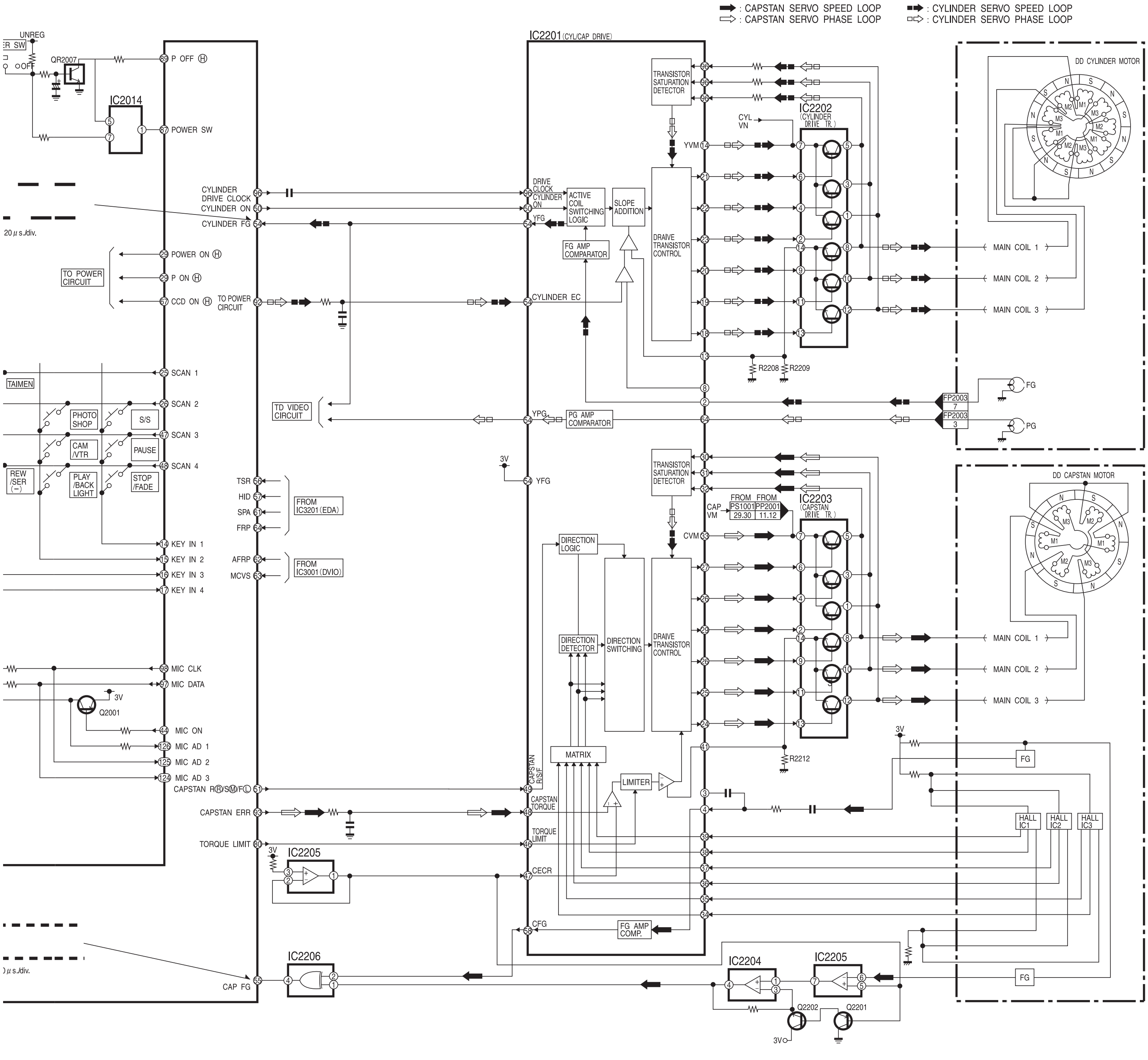
BLOCK DIAGRAM

CONTENTS

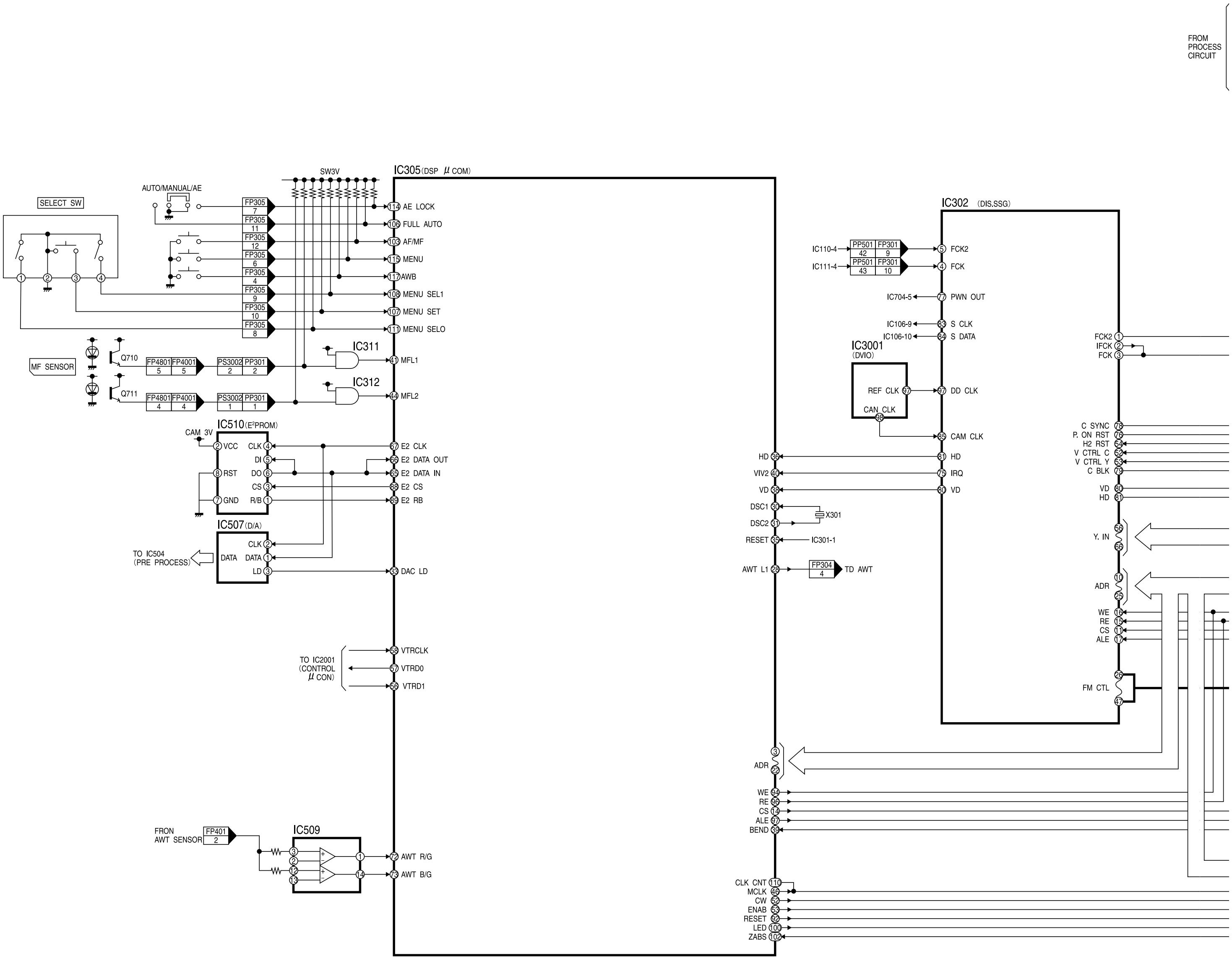
SYSTEM CONTROL & SERVO BLOCK DIAGRAM BLK-1
PROCESS BLOCK DIAGRAM BLK-3
CCD DRIVE BLOCK DIAGRAM BLK-5
VIDEO BLOCK DIAGRAM BLK-7

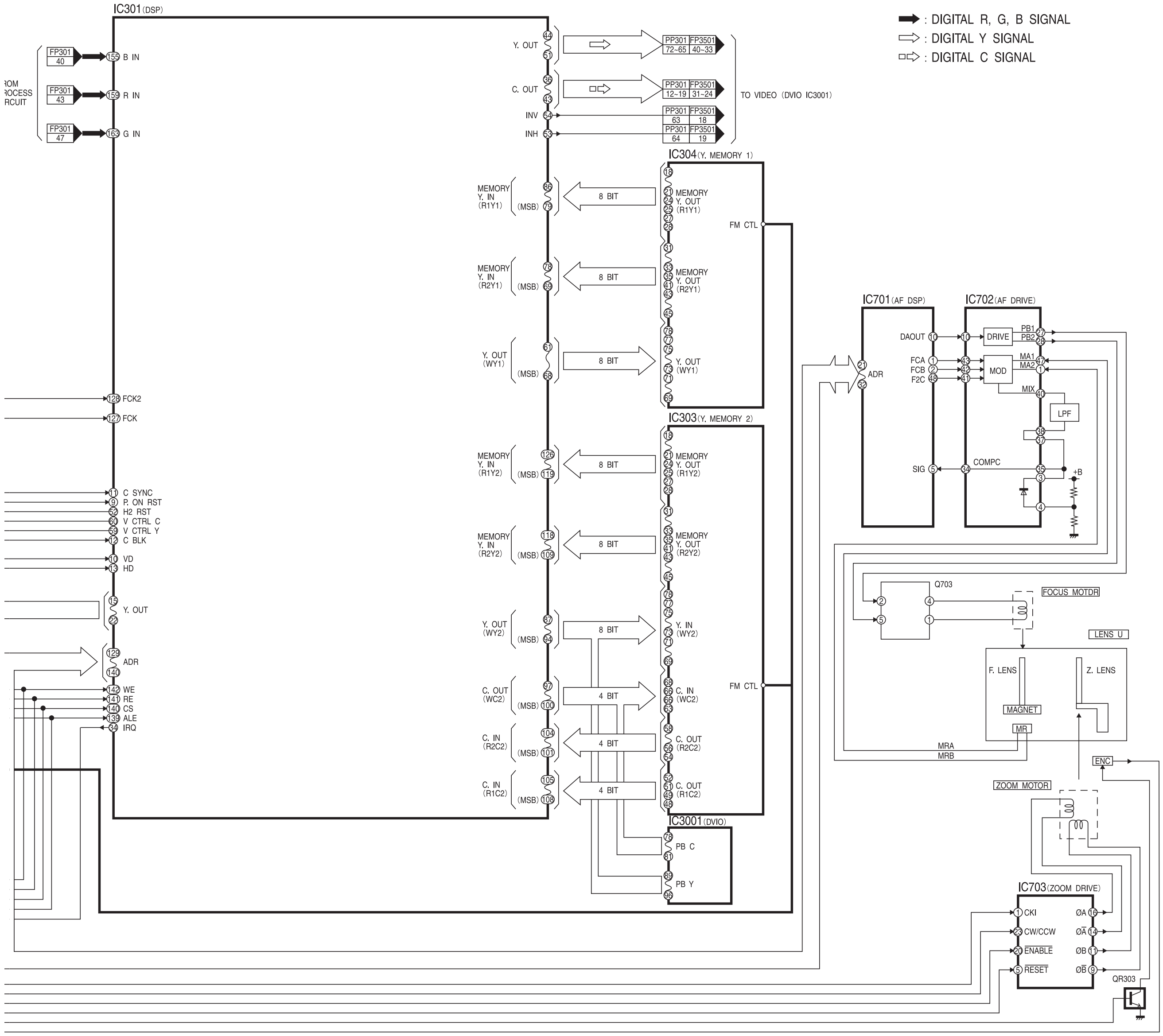
SYSTEM CONTROL & SERVO BLOCK DIAGRAM


IC2001
(SYSTEM CONTROL/SERVO MICROPROCESSOR)
NOREG
IC2004
REG
VCC
OSC VCC
AVREF
AVCC
IC2010(RST)
VDD RST
TO EVR
RESET
X OUT
X IN
X2001
(27M)
1.4VP-P
0.2μs./div
MODE SW
REG3V
POS 1
POS 2
POS 3
CASSETTE DOWN SW
CASSETTE DOWN Ⓛ
S-TAB SW
S-TAB
TO IC5001 (HRAMP)
NO REG
Q2003
Q2002
SNS LED
IC2011(PC I/F MICON)
TO MONITOR
TO EVF IC802
TO AUDIO
TO FRONT
TO LED
TO LCD
TO MONITOR
TO RS232C
L/R CONT
UP/DOWN CONT
LCD WIDE
SPK ON Ⓛ
WIND SW Ⓡ
VTR LED
CAM LED
LCD BL CONT
BL BRIGHT Ⓡ
UART 0
UART 1
X2
X1
(14.748M)
X2003
3V
S. PHOTO
T. PHOTO
QR2003
QR2002
S PHOTO ADJ 1
S PHOTO ADJ 2
T PHOTO ADJ 1
T PHOTO ADJ 1
FROM POWER CIRCUIT
BATT REF
BATT(SW UNREG)
INN BATT Ⓡ
SCK
SDI
SDO
COM RDY
TO EVR /IC302
EVR SBI
IC2003 (CHARA GEN)
TO VIDEO /LCD
CHARACTOR OUT
EVR SCK
EVR SBO
CG CS
CG PCL
T. REEL SENSOR
S. REEL SENSOR
FP2004
18
14
17
15
IC2007
T. REEL
S. REEL
IC2207
(LOADING MOTOR DRIVE)
UNLOAD
LOAD
RIN
FIN
M
LOADING MOTOR
QR2004
QR2005
D2007
SOLENOID
SOLENOID ON
IC2002
(REAL TIME CLOCK)
TM-CG-CLK
TM-CG-DO
TM-CG-DI
TIME CS
SCK
SIO
CS
VDD
X IN
X OUT
X2002
QR2001
LI BATTERY
QR2011
IC2009
3.8V REG
1.2Vp-p. 20μs./div
CRG LI
IC2012
QR2008
CAN CLK
CAN/5PCONT
CAM DO
CAM DI
IC2008
TO MULTI CONNECTOR (EDIT SP)
TAIMEN
TO IC302 (CAM MICON)
FF /SER (+)
REW /SER (−)
DCS CLK
DCS DO
DCS DI
DCS WA
DCS STP
TO IC3001/IC3003 (DVIO/CAS)
IC3001 (DVIO)
IC3003 (CAS)
IC2006(DAC)
DAC LD
EE CLK
EE DI
EE DO
LD
CLK
DI
ADJ DATA OUT
IC2005(E²POM)
BATT(SW UNREG)
CS
SK
DO
DI
MIC SW
ALE
RD
BLW
TO IC3201 (IDA IC)
ADDRESS/DATA IN/OUT (SW UNREG)
TO IC3801/IC3201/IC3003 (DIGITAL I/F/EDA/CAS)
POWER SW
ON
OF
UN
1.5Vp-p. 20μs./div.


: CAPSTAN SERVO SPEED LOOP
: CAPSTAN SERVO PHASE LOOP
: CYLINDER SERVO SPEED LOOP
: CYLINDER SERVO PHASE LOOP
UNREG
R SW
OFF
QR2007
IC2014
P OFF Ⓗ
POWER SW
CYLINDER DRIVE CLOCK
CYLINDER ON
CYLINDER FG
20 μ s./div.
POWER ON Ⓗ
P ON Ⓗ
CCD ON Ⓗ
TO POWER CIRCUIT
TO POWER CIRCUIT
SCAN 1
SCAN 2
SCAN 3
SCAN 4
TAIMEN
PHOTO SHOP
S/S
CAM /VTR
PAUSE
REW /SER (−)
PLAY /BACK LIGHT
STOP /FADE
KEY IN 1
KEY IN 2
KEY IN 3
KEY IN 4
TD VIDEO CIRCUIT
TSR
HID
SPA
FRP
FROM IC3201 (EDA)
AFRP
MCVS
FROM IC3001 (DVIO)
MIC CLK
MIC DATA
3V
Q2001
MIC ON
MIC AD 1
MIC AD 2
MIC AD 3
CAPSTAN Ⓡ/Ⓢ/Ⓕ
CAPSTAN ERR
TORQUE LIMIT
IC2205
IC2206
CAP FG
0 μ s./div.
IC2201 (CYL/CAP DRIVE)
DRIVE CLOCK
CYLINDER ON
YFG
ACTIVE COIL SWITCHING LOGIC
SLOPE ADDITION
FG AMP COMPARATOR
CYLINDER EC
YPG
PG AMP COMPARATOR
TRANSISTOR SATURATION DETECTOR
DRAIVE TRANSISTOR CONTROL
IC2202 (CYLINDER DRIVE TR.)
CYL VN
YVM
R2208
R2209
FP2003 7
FP2003 3
FG
PG
DD CYLINDER MOTOR
MAIN COIL 1
MAIN COIL 2
MAIN COIL 3
TRANSISTOR SATURATION DETECTOR
IC2203 (CAPSTAN DRIVE TR.)
CAP VM
FROM PS1001 29.30
FROM PP2001 11.12
CVM
DIRECTION LOGIC
DIRECTION DETECTOR
DIRECTION SWITCHING
DRAIVE TRANSISTOR CONTROL
MATRIX
LIMITER
CAPSTAN R/S/F
CAPSTAN TORQUE
TORQUE LIMIT
CECR
CFG
FG AMP COMP.
R2212
DD CAPSTAN MOTOR
HALL IC1
HALL IC2
HALL IC3
FG
IC2204
IC2205
Q2202
Q2201
3V

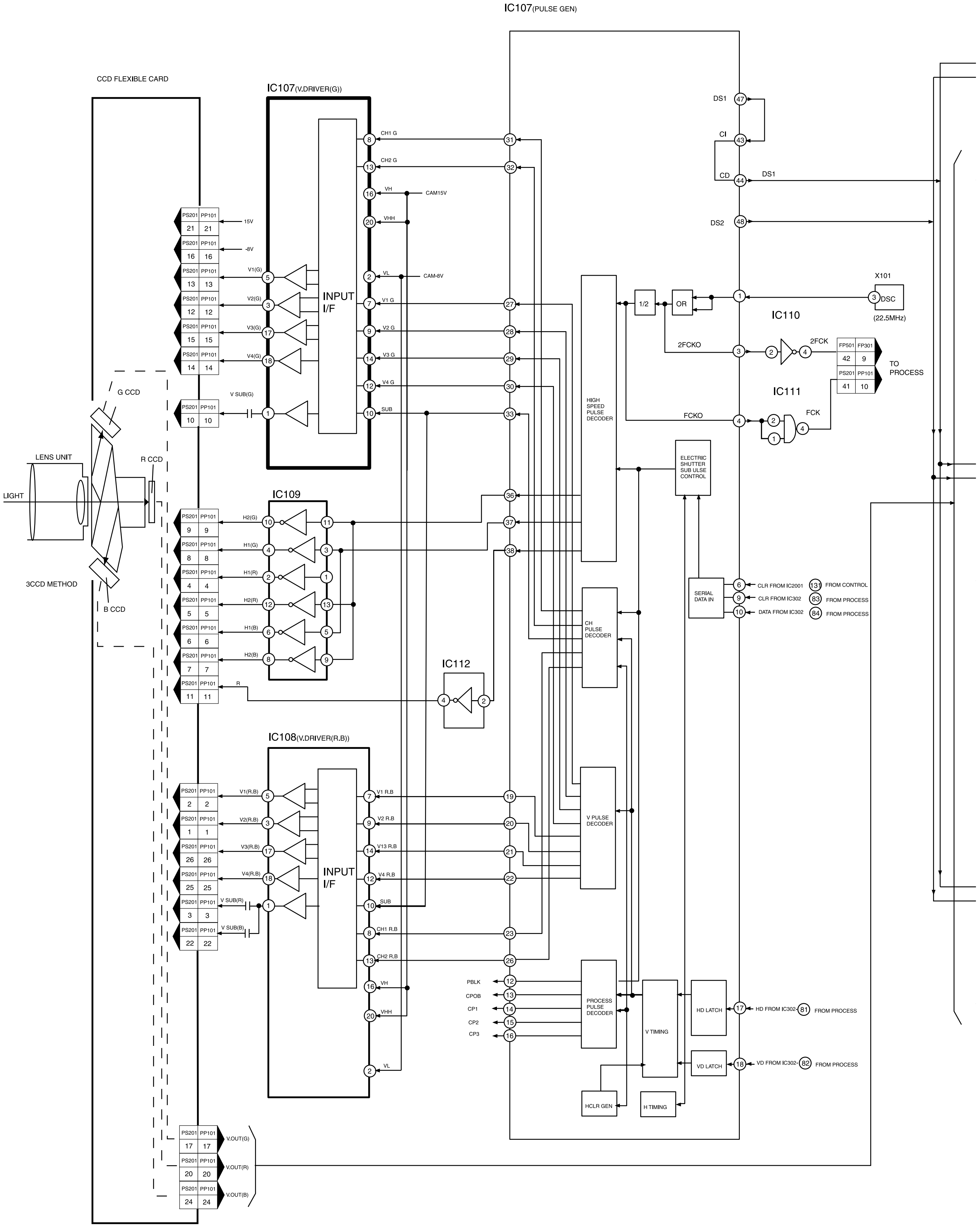
PROCESS BLOCK DIAGRAM


FROM PROCESS CIRCUIT
SW3V
IC305 (DSP μCOM)
AUTO/MANUAL/AE
SELECT SW
FP305 7
FP305 11
FP305 12
FP305 6
FP305 4
FP305 9
FP305 10
FP305 8
AE LOCK
FULL AUTO
AF/MF
MENU
AWB
MENU SEL1
MENU SET
MENU SELO
MF SENSOR
Q710
Q711
FP4801
FP4001
PS3002
PP301
IC311
IC312
MFL1
MFL2
IC510 (E²PROM)
CAM 3V
VCC
CLK
DI
DO
CS
R/B
RST
GND
E2 CLK
E2 DATA OUT
E2 DATA IN
E2 CS
E2 RB
IC507 (D/A)
DATA
LD
TO IC504 (PRE PROCESS)
DAC LD
TO IC2001 (CONTROL μCON)
VTRCLK
VTRD0
VTRD1
FRON AWT SENSOR
FP401 2
IC509
AWT R/G
AWT B/G
HD
VIV2
VD
DSC1
DSC2
X301
RESET
IC301-1
AWT L1
FP304 4
TD AWT
ADR
WE
RE
CS
ALE
BEND
CLK CNT
MCLK
CW
ENAB
RESET
LED
ZABS
IC302 (DIS,SSG)
IC110-4
IC111-4
PP501 42
PP501 43
FP301 9
FP301 10
FCK2
FCK
IC704-5
PWN OUT
IC106-9
IC106-10
S CLK
S DATA
IC3001 (DVIO)
REF CLK
CAN CLK
DD CLK
CAM CLK
IRQ
IFCK
C SYNC
P. ON RST
H2 RST
V CTRL C
V CTRL Y
C BLK
Y. IN
FM CTL

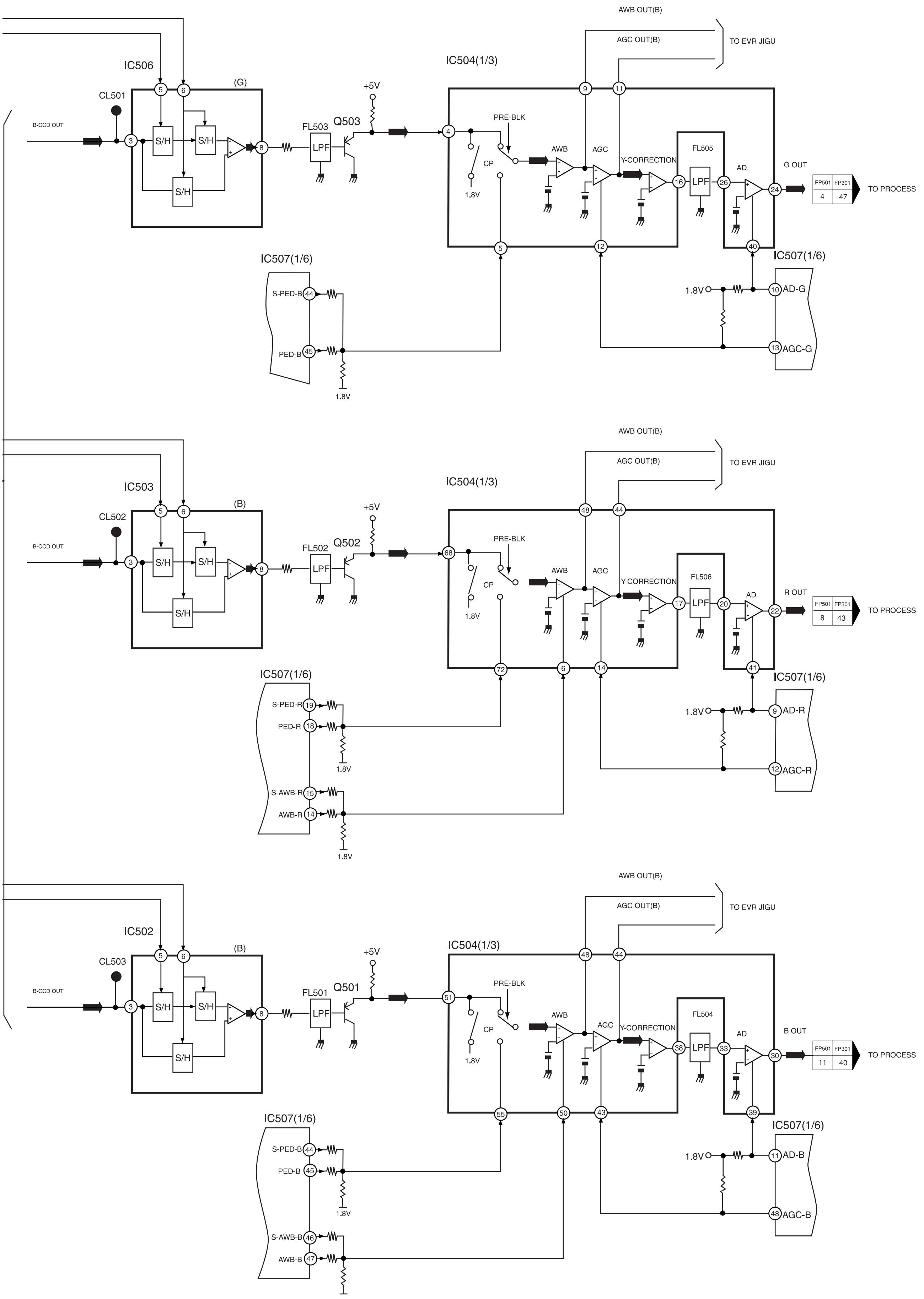


: DIGITAL R, G, B SIGNAL
: DIGITAL Y SIGNAL
: DIGITAL C SIGNAL
IC301 (DSP)
ROM
ROCESS
RCUIT
FP301 40
FP301 43
FP301 47
B IN
R IN
G IN
Y. OUT
C. OUT
INV
INH
PP301 FP3501 72~65 40~33
PP301 FP3501 12~19 31~24
PP301 FP3501 63 18
PP301 FP3501 64 19
TO VIDEO (DVIO IC3001)
IC304 (Y. MEMORY 1)
MEMORY Y. IN (R1Y1) (MSB)
8 BIT
MEMORY Y. OUT (R1Y1)
FM CTL
MEMORY Y. IN (R2Y1) (MSB)
MEMORY Y. OUT (R2Y1)
Y. OUT (WY1) (MSB)
Y. OUT (WY1)
FCK2
FCK
IC303 (Y. MEMORY 2)
MEMORY Y. IN (R1Y2) (MSB)
MEMORY Y. OUT (R1Y2)
C SYNC
P. ON RST
H2 RST
V CTRL C
V CTRL Y
C BLK
VD
HD
MEMORY Y. IN (R2Y2) (MSB)
MEMORY Y. OUT (R2Y2)
Y. OUT
Y. OUT (WY2) (MSB)
Y. IN (WY2)
ADR
WE
RE
CS
ALE
IRQ
C. OUT (WC2) (MSB)
4 BIT
C. IN (WC2)
C. IN (R2C2) (MSB)
C. OUT (R2C2)
C. IN (R1C2) (MSB)
C. OUT (R1C2)
IC3001 (DVIO)
PB C
PB Y
IC701 (AF DSP)
IC702 (AF DRIVE)
DAOUT
DRIVE
PB1
PB2
FCA
FCB
F2C
MOD
MA1
MA2
MIX
LPF
ADR
SIG
COMPC
+B
Q703
FOCUS MOTOR
LENS U
F. LENS
Z. LENS
MAGNET
MR
MRA
MRB
ENC
ZOOM MOTOR
IC703 (ZOOM DRIVE)
CKI
CW/CCW
ENABLE
RESET
ØA
ØA
ØB
ØB
QR303

CCD DRIVE BLOCK DIAGRAM

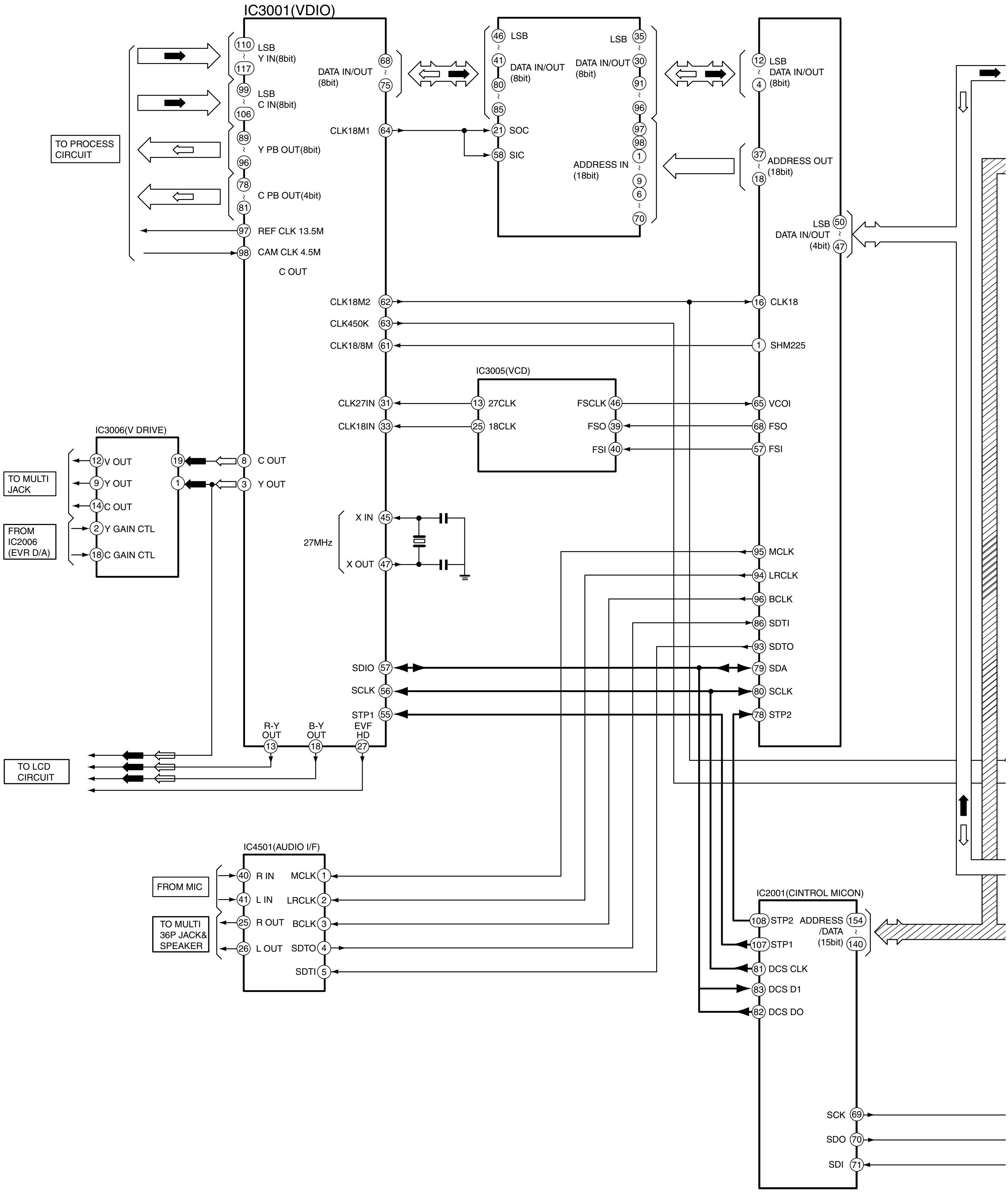


IC107(PULSE GEN)
CCD FLEXIBLE CARD
IC107(V.DRIVER(G))
INPUT I/F
CH1 G
CH2 G
VH
CAM15V
VHH
VL
CAM-8V
V1 G
V2 G
V3 G
V4 G
SUB
15V
-8V
V1(G)
V2(G)
V3(G)
V4(G)
V SUB(G)
PS201
PP101
G CCD
R CCD
B CCD
LENS UNIT
LIGHT
3CCD METHOD
DS1
CI
CD
DS1
DS2
X101
DSC
(22.5MHz)
1/2
OR
IC110
2FCKO
2FCK
FP501
FP301
TO PROCESS
IC111
FCKO
FCK
HIGH SPEED PULSE DECODER
ELECTRIC SHUTTER SUB ULSE CONTROL
SERIAL DATA IN
CLR FROM IC2001
CLR FROM IC302
DATA FROM IC302
FROM CONTROL
FROM PROCESS
FROM PROCESS
CH PULSE DECODER
IC109
H2(G)
H1(G)
H1(R)
H2(R)
H1(B)
H2(B)
R
IC112
IC108(V.DRIVER(R.B))
V1(R.B)
V2(R.B)
V3(R.B)
V4(R.B)
V SUB(R)
V SUB(B)
V1 R.B
V2 R.B
V13 R.B
V4 R.B
CH1 R.B
CH2 R.B
V PULSE DECODER
PBLK
CPOB
CP1
CP2
CP3
PROCESS PULSE DECODER
V TIMING
HD LATCH
VD LATCH
HD FROM IC302
VD FROM IC302
FROM PROCESS
FROM PROCESS
HCLR GEN
H TIMING
V.OUT(G)
V.OUT(R)
V.OUT(B)

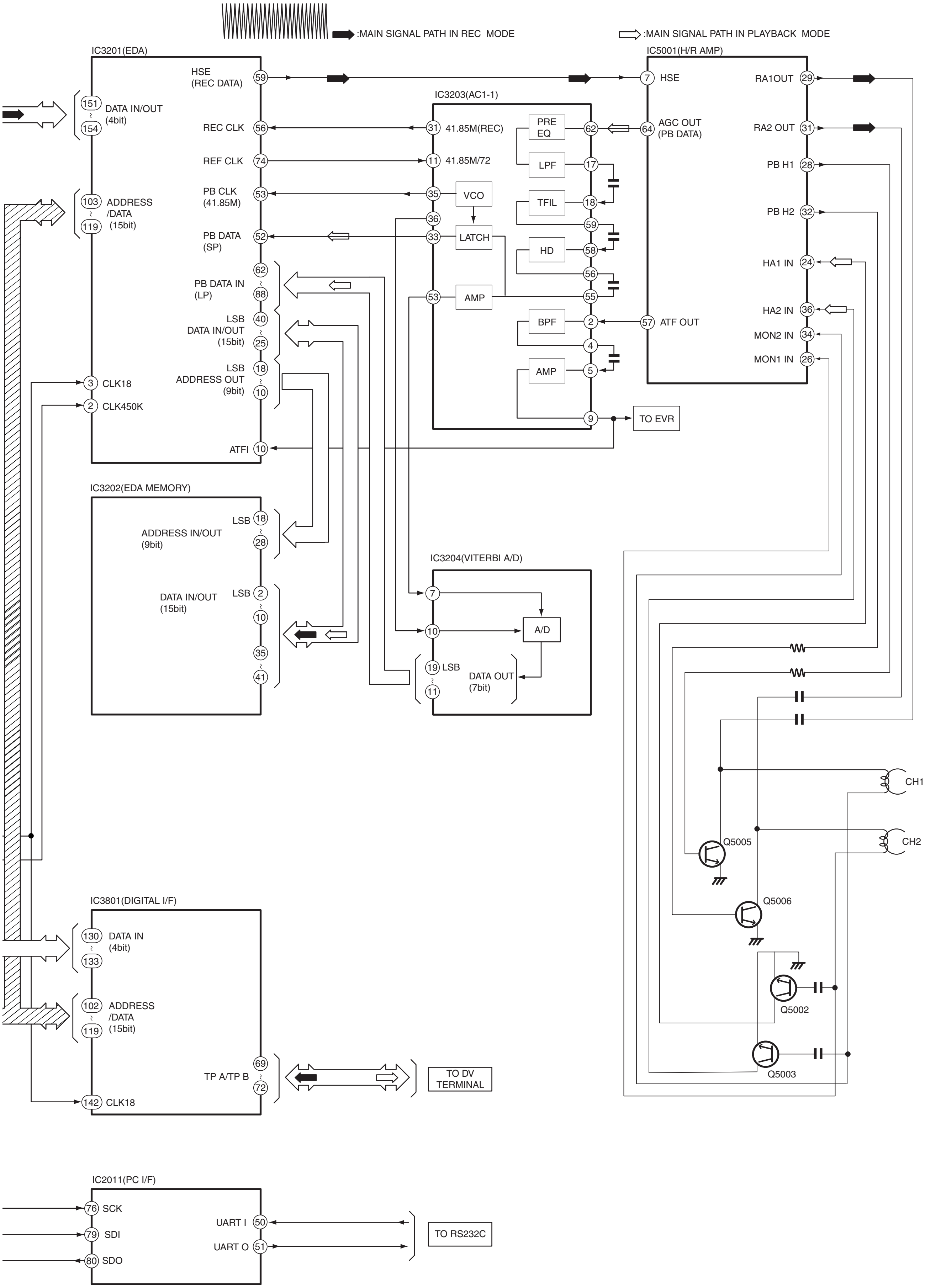

AWB OUT(B)
AGC OUT(B)
TO EVR JIGU
IC506
(G)
CL501
B-CCD OUT
S/H
FL503
LPF
Q503
+5V
IC504(1/3)
PRE-BLK
CP
1.8V
AWB
AGC
Y-CORRECTION
FL505
LPF
AD
G OUT
FP501
FP301
4
47
TO PROCESS
IC507(1/6)
S-PED-B
PED-B
1.8V
1.8V
AD-G
AGC-G
IC503
(B)
CL502
FL502
Q502
R OUT
FL506
8
43
S-PED-R
PED-R
S-AWB-R
AWB-R
AD-R
AGC-R
IC502
CL503
FL501
Q501
FL504
B OUT
11
40
S-AWB-B
AWB-B
AD-B
AGC-B

BLK-6

VIDEO BLOCK DIAGRAM



IC3001(VDIO)
110
LSB
Y IN(8bit)
117
99
LSB
C IN(8bit)
106
TO PROCESS CIRCUIT
89
Y PB OUT(8bit)
96
78
C PB OUT(4bit)
81
97
REF CLK 13.5M
98
CAM CLK 4.5M
C OUT
DATA IN/OUT (8bit)
68
75
CLK18M1
64
46
LSB
41
DATA IN/OUT (8bit)
80
85
21
SOC
58
SIC
LSB
35
DATA IN/OUT (8bit)
30
91
96
97
98
1
ADDRESS IN (18bit)
9
6
70
12
LSB
DATA IN/OUT (8bit)
4
37
ADDRESS OUT (18bit)
18
LSB
50
DATA IN/OUT (4bit)
47
CLK18M2
62
CLK450K
63
CLK18/8M
61
16
CLK18
1
SHM225
IC3005(VCD)
CLK27IN
31
CLK18IN
33
13
27CLK
25
18CLK
FSCLK
46
FSO
39
FSI
40
65
VCOI
68
FSO
57
FSI
IC3006(V DRIVE)
TO MULTI JACK
12
V OUT
9
Y OUT
14
C OUT
FROM IC2006 (EVR D/A)
2
Y GAIN CTL
18
C GAIN CTL
19
1
8
C OUT
3
Y OUT
X IN
45
27MHz
X OUT
47
95
MCLK
94
LRCLK
96
BCLK
86
SDTI
93
SDTO
SDIO
57
SCLK
56
STP1
55
79
SDA
80
SCLK
78
STP2
R-Y OUT
13
B-Y OUT
18
EVF HD
27
TO LCD CIRCUIT
IC4501(AUDIO I/F)
FROM MIC
40
R IN
41
L IN
TO MULTI 36P JACK& SPEAKER
25
R OUT
26
L OUT
MCLK
1
LRCLK
2
BCLK
3
SDTO
4
SDTI
5
IC2001(CINTROL MICON)
108
STP2
107
STP1
81
DCS CLK
83
DCS D1
82
DCS DO
ADDRESS /DATA (15bit)
154
140
SCK
69
SDO
70
SDI
71


:MAIN SIGNAL PATH IN REC MODE
:MAIN SIGNAL PATH IN PLAYBACK MODE
IC3201(EDA)
HSE
(REC DATA)
59
151
154
DATA IN/OUT
(4bit)
REC CLK
56
REF CLK
74
103
119
ADDRESS
/DATA
(15bit)
PB CLK
(41.85M)
53
PB DATA
(SP)
52
PB DATA IN
(LP)
62
88
LSB
DATA IN/OUT
(15bit)
40
25
LSB
ADDRESS OUT
(9bit)
18
10
3
CLK18
2
CLK450K
ATFI
10
IC3203(AC1-1)
31
41.85M(REC)
11
41.85M/72
35
VCO
36
33
LATCH
53
AMP
PRE
EQ
LPF
TFIL
HD
BPF
AMP
62
17
18
59
58
56
55
2
4
5
9
TO EVR
IC5001(H/R AMP)
7
HSE
64
AGC OUT
(PB DATA)
57
ATF OUT
RA1OUT
29
RA2 OUT
31
PB H1
28
PB H2
32
HA1 IN
24
HA2 IN
36
MON2 IN
34
MON1 IN
26
IC3202(EDA MEMORY)
ADDRESS IN/OUT
(9bit)
LSB
18
28
DATA IN/OUT
(15bit)
LSB
2
10
35
41
IC3204(VITERBI A/D)
7
10
A/D
19
LSB
11
DATA OUT
(7bit)
CH1
CH2
Q5005
Q5006
Q5002
Q5003
IC3801(DIGITAL I/F)
130
133
DATA IN
(4bit)
102
119
ADDRESS
/DATA
(15bit)
69
72
TP A/TP B
TO DV
TERMINAL
142
CLK18
IC2011(PC I/F)
76
SCK
79
SDI
80
SDO
UART I
50
UART O
51
TO RS232C

SECTION 5

ELECTRICAL ADJUSTMENTS

CONTENTS

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  1-2. Servicing Fixtures and Tools EAD-1
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  2-5. Waveform Illustration EAD-5
3. EEPROM EAD-5
  3-1. How to Save Camera EEPROM Data EAD-5
  3-2. How to Save VTR Main EEPROM Data EAD-5
  3-3. Rewrite Saved Data EAD-6
  3-4. How to Rewrite Camera Main C.B.A. Saved Data EAD-6
  3-5. How to Rewrite Video C.B.A. Saved Data EAD-6
4. C.B.A. REPLACEMENT EAD-6
  4-1. How to Input ID Number EAD-6
5. CAMERA ADJUSTMENT PROCEDURE EAD-6
  5-1. Hall Amp Adjustment EAD-6
  5-2. Iris PWM Adjustment EAD-7
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  5-5. AGC 0dB Adjustment EAD-7
  5-6. AGC 12dB Adjustment EAD-7
  5-7. AD Input Level Adjustment EAD-7

5-8. ALC Adjustment EAD-7
5-9. White Balance Adjustment EAD-8
5-10. AWT Sensor Adjustment EAD-9
6. VIDEO ADJUSTMENT EAD-9
6-1. Sensitivity Adjustment EAD-9
6-2. Luminance Level Adjustment EAD-9
6-3. Color Level Adjustment EAD-9
6-4. Video VCO Adjustment EAD-10
6-5. PG Shifter Adjustment EAD-10
6-6. RF.VITERBI Adjustment EAD-10
7. EVF ADJUSTMENT EAD-10
7-1. PLL Adjustment (Normal) EAD-10
7-2. PLL Adjustment (Wide) EAD-10
7-3. Pedestal Level Adjustment EAD-10
7-4. Pedestal Level Adjustment EAD-10
7-5. Gamma Level Adjustment EAD-10
7-6. Color Level Adjustment EAD-10
7-7. White Balance Adjustment EAD-10

ELECTRICAL ADJUSTMENT PROCEDURES

1. PREPARATION

To perform electrical adjustments completely, the following measuring equipment is required.

1-1. Measuring Equipment

Dual-Trace Oscilloscope	**Specification**
Voltage Range	0.001 to 50V/Div.
Frequency Range	DC to 100MHz
Probes	10:1, 1:1
DVM (Digital Volt Meter)	
Frequency Counter	
Frequency Range	0 to 150MHz

Fig.E1

1-2. Servicing Fixtures and Tools

Please refer to 4-1. In section 2.

1-3. Adjustment System

For performing the electrical adjustment, the following adjustment system is required.

The measuring board (VFK1308P) as shown in figure E2 has 2 types of RS-232C connectors 9pin D-sub connector and M3 RS-232C connector.

A) 9 Pin RS-232C D-sub Connector

If an ordinary 9-pin RS-232C cross cable is available, connect it between the measuring board and personal computer as shown in figure E2.

B) M3 RS-232C Connector

Also M3 RS-232C cable can be used instead of ordinary 9-pin RS-232C cross cable.

The part number of M3 RS-232C cable is VFK1395.

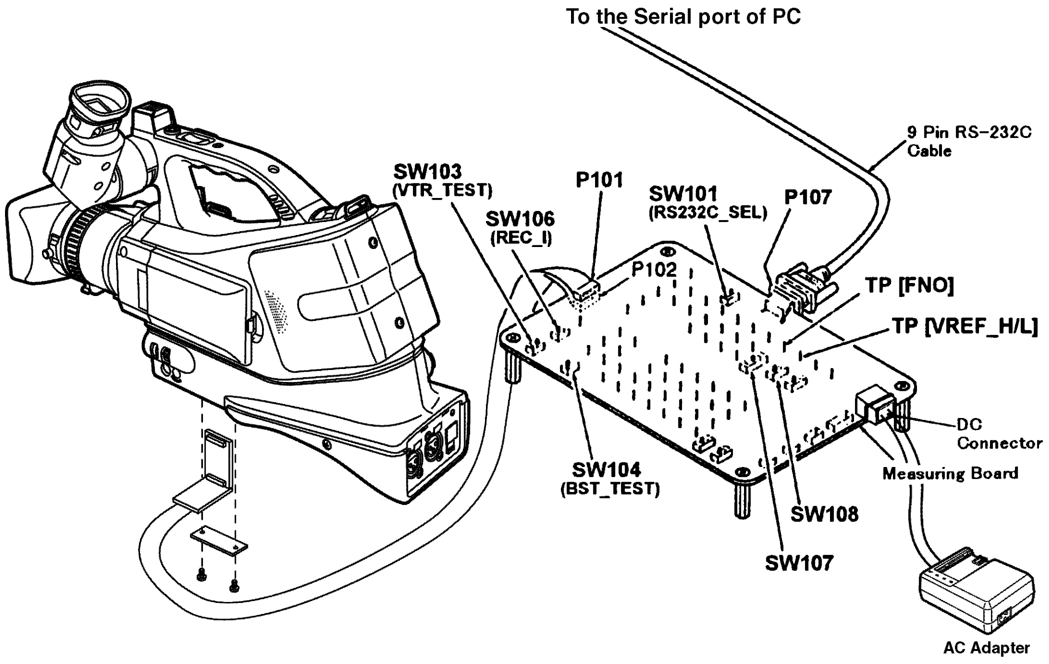

To the Serial port of PC
9 Pin RS-232C Cable
SW103 (VTR_TEST)
P101
SW101 (RS232C_SEL)
P107
SW106 (REC_I)
P102
TP [FNO]
TP [VREF_H/L]
DC Connector
Measuring Board
SW104 (BST_TEST)
SW108
SW107
AC Adapter

Fig.E2

1-4. System Hook up Procedures

1. Unscrew 2 screws and remove the EVR cover.

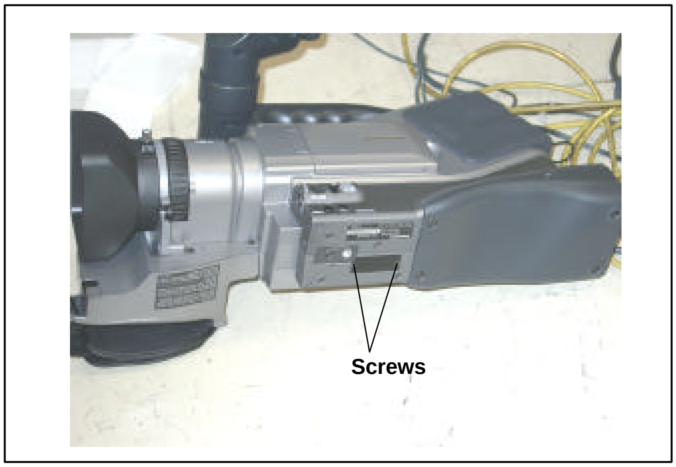


Fig.E3

2. Connect the 2 pcs. of 30 pin flat cables between P101/P102 on the Measuring Board, and 2 connectors on the Connector Board. Make sure that the contact surface of 2 pcs. of 30 pin Flat Cables are inner side and direction of the Connection Board is as shown in Figures E4. Then connect the Extension board.

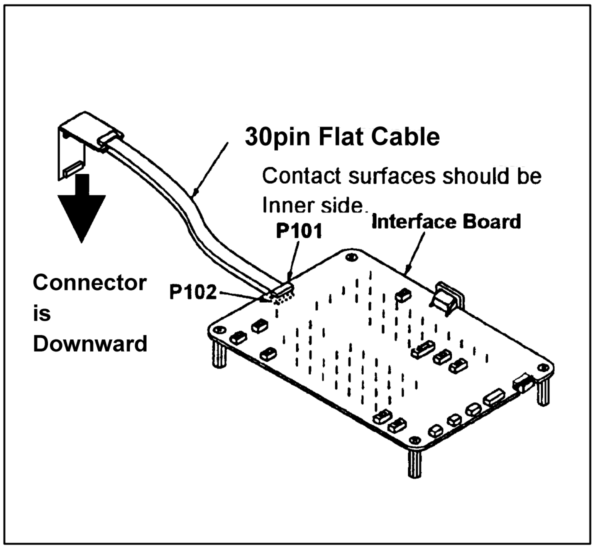


Fig.E4

3. Set the Connector Board with the 30 pin Cables to the unit as shown in Figure E5. Make sure that the direction of the Connection Board is correct as shown in Figure E5.

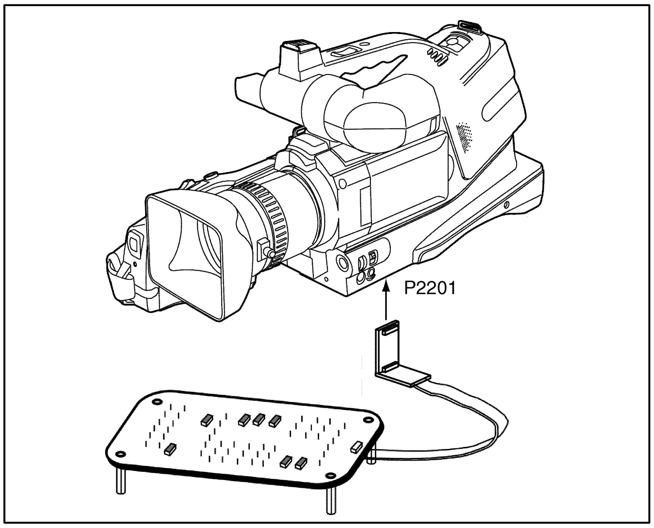


Fig.E5

4. Connect the AC adapter or set the Battery to the unit.
5. Connect a 9 pin RS-232C cable between the Measuring Board and RS-232C connector on Personal Computer as shown in Figure E2.
6. Supply DC6V to the Measuring Board (VFK1308P).
7. Unless otherwise specified on the message of the EVR software, set the switches on the Measuring Board as shown in the table below.

SW REF.	NAME OF SW	SETTING POSITION
SW101	RS-232 Select	It is depend on the type of the cable between the measuring board and PC. *Ordinary 9pin RS-232C Cross Cable: D-SUB Position *M4 RS-232C Cable: M3 Position
SW103	VTR Test	L Position
SW104	BST Test	NORMAL Position
SW106	REC I	OFF Position
SW107		CENTERT Position

Fig.E6

Using halogen lamps in the camera room.

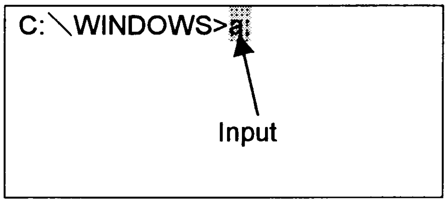
The camera adjustments should be performed under the following lighting condition.

Color Temperature	:3100K°
Lumination	:1400Lux

2. PC EVR (ADJUSTMENT) SOFTWARE

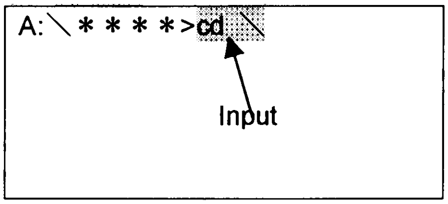
2-1. BOOT UP THE ADJUSTMENT SOFTWARE

1. At the first, copy the EVR software from floppy disc (VFK1694) to the HDD in your Personal Computer (PC).
2. Power ON the PC.
3. Restart the PC in DOS mode.
4. Boot up the EVR program as the following steps.
   1) Type "a:" and then press the "ENTER" key.
      C:¥WINDOWS>a:



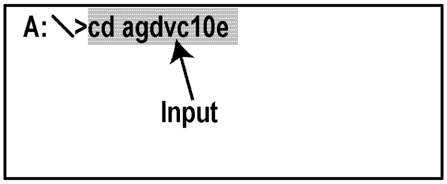
```
C:＼WINDOWS>a:
```

   2) Type "cd ＼" and then press the "ENTER" key.



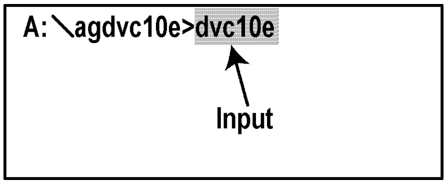
```
A:＼＊＊＊＊>cd ＼
```

   3) Type the "cd agdvc10e" and press the "ENTER" key.



```
A:＼>cd agdvc10e
```

   4) Type the "dvc10e" and then press the "ENTER" key.



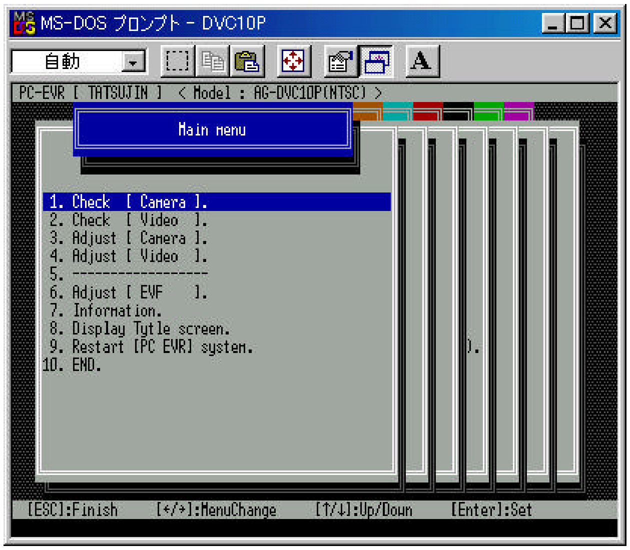
```
A:＼agdvc10e>dvc10e
```

   5) Wait for a few seconds so that the EVR adjustment program is started.
   6) For the adjustments, follow the program display.

2-2. How to Use the Main Menu

Select a Sub Menu to check, adjust the unit and etc. by pressing ↑↓ (UP/DOWN) Key in Main Menu. Then press "ENTER" Key. the Sub Menu will be displayed.

Note: Menu (pages) 3,4 and 5 are needed for adjustment.
The menu (page) 5 is not available for AG-DVC10 because it has no LCD monitor.

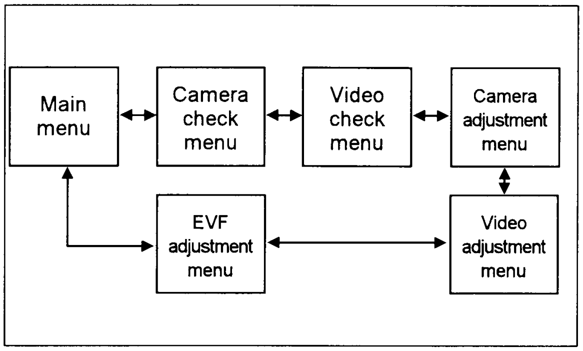


MS-DOS プロンプト - DVC10P
自動
A

```
PC-EVR [ TATSUJIN ]  < Model : AG-DVC10P(NTSC) >

                 Main menu

 1. Check  [ Camera ].
 2. Check  [ Video  ].
 3. Adjust [ Camera ].
 4. Adjust [ Video  ].
 5. ------------------
 6. Adjust [ EVF    ].
 7. Information.
 8. Display Tytle screen.
 9. Restart [PC EVR] system.                              ).
10. END.

[ESC]:Finish    [←/→]:MenuChange    [↑/↓]:Up/Down    [Enter]:Set
```

Fig.E7

With using ←→ keys, also the menu can be changed.

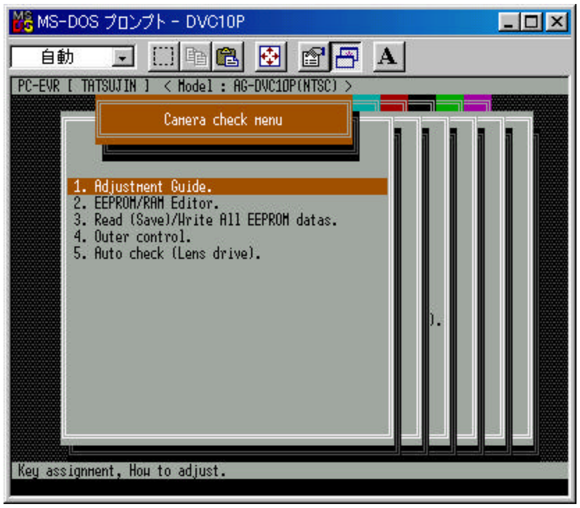


Main menu
Camera check menu
Video check menu
Camera adjustment menu
EVF adjustment menu
Video adjustment menu

Fig.E8

2-3. Introduction of the Sub Menu

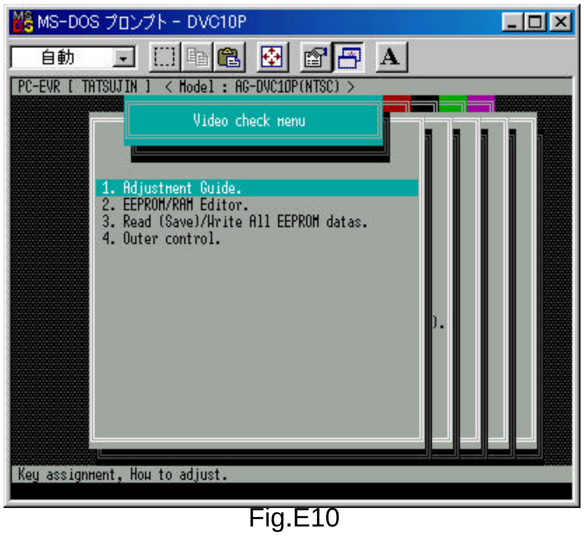
1) Camera Check Menu



```
PC-EVR [ TATSUJIN ]  < Model : AG-DVC10P(NTSC) >
Camera check menu
1. Adjustment Guide.
2. EEPROM/RAM Editor.
3. Read (Save)/Write All EEPROM datas.
4. Outer control.
5. Auto check (Lens drive).
Key assignment, How to adjust.
```

Fig.E9

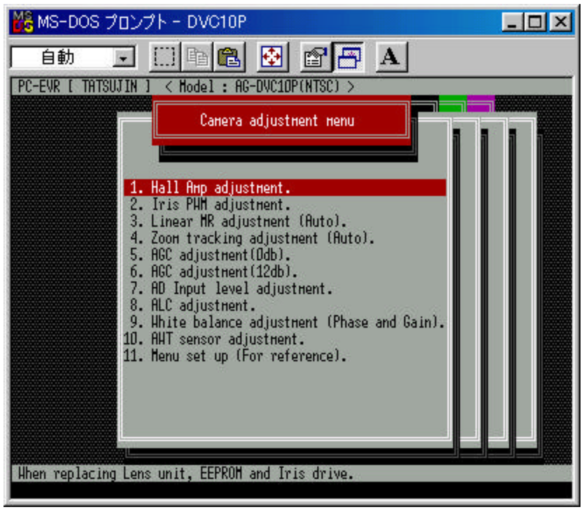
2) Video Check Menu



```
PC-EVR [ TATSUJIN ]  < Model : AG-DVC10P(NTSC) >
Video check menu
1. Adjustment Guide.
2. EEPROM/RAM Editor.
3. Read (Save)/Write All EEPROM datas.
4. Outer control.
Key assignment, How to adjust.
```

Fig.E10

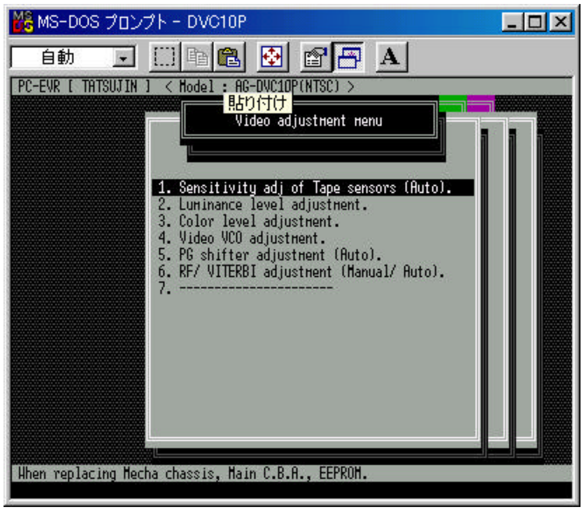
3) Camera Adjustment Menu



```
PC-EVR [ TATSUJIN ]  < Model : AG-DVC10P(NTSC) >
Camera adjustment menu
 1. Hall Amp adjustment.
 2. Iris PWM adjustment.
 3. Linear MR adjustment (Auto).
 4. Zoom tracking adjustment (Auto).
 5. AGC adjustment(0db).
 6. AGC adjustment(12db).
 7. AD Input level adjustment.
 8. ALC adjustment.
 9. White balance adjustment (Phase and Gain).
10. AWT sensor adjustment.
11. Menu set up (For reference).
When replacing Lens unit, EEPROM and Iris drive.
```

Fig.E11

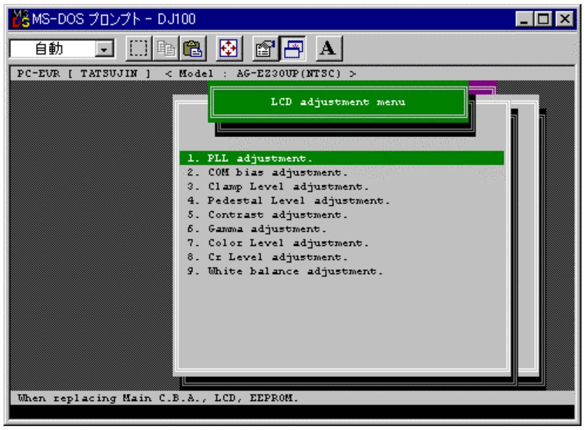
4) Video Adjustment Menu



```
PC-EVR [ TATSUJIN ]  < Model : AG-DVC10P(NTSC) >
Video adjustment menu
1. Sensitivity adj of Tape sensors (Auto).
2. Luminance level adjustment.
3. Color level adjustment.
4. Video VCO adjustment.
5. PG shifter adjustment (Auto).
6. RF/ VITERBI adjustment (Manual/ Auto).
7. ---------------------
When replacing Mecha chassis, Main C.B.A., EEPROM.
```

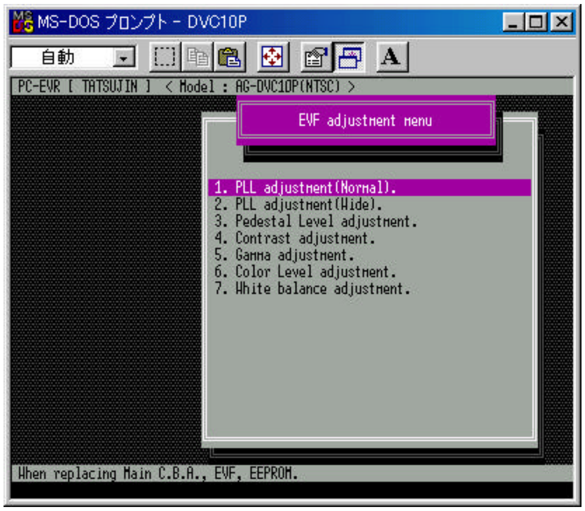
Fig.E12

5) LCD Adjustment Menu



```
PC-EVR [ TATSUJIN ]  < Model : AG-EZ30UP(NTSC) >
LCD adjustment menu
1. PLL adjustment.
2. COM bias adjustment.
3. Clamp Level adjustment.
4. Pedestal Level adjustment.
5. Contrast adjustment.
6. Gamma adjustment.
7. Color Level adjustment.
8. Cr Level adjustment.
9. White balance adjustment.
When replacing Main C.B.A., LCD, EEPROM.
```

6) EVF Adjustment Menu



```
PC-EVR [ TATSUJIN ]  < Model : AG-DVC10P(NTSC) >
EVF adjustment menu
1. PLL adjustment(Normal).
2. PLL adjustment(Wide).
3. Pedestal Level adjustment.
4. Contrast adjustment.
5. Gamma adjustment.
6. Color Level adjustment.
7. White balance adjustment.
When replacing Main C.B.A., EVF, EEPROM.
```

Fig.E13

2-4. Restoration of Connecting Error

This program checks connecting condition with this Unit all the time.

When the power of this Unit is turned off, VTR is reset, or cable is disconnected during servicing, restart the program by pressing “CTRL” key and “BREAK” key Simu Hq neously

2-5. Waveform Illustration

This program displays the waveform illustration, when the “F2” key is pressed in the adjustment mode.

3. EEPROM

All adjustment data has been stored in the EEPROM.

There are two EEPROM in this unit as shown in the table below.

EEPROM LOCATION

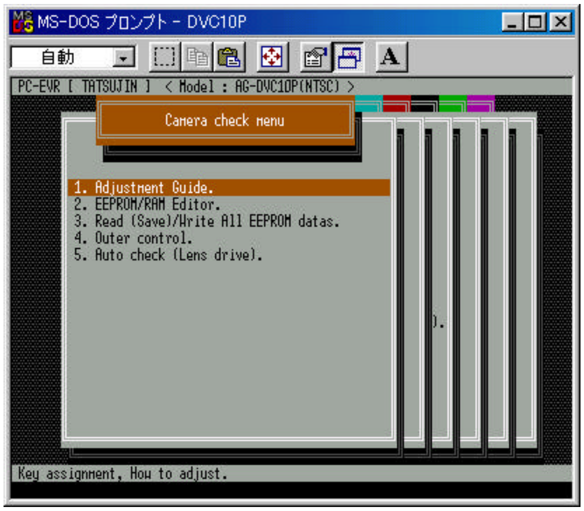
C.B.A.	EEPROM IC Ref.No.
Camera Main C.B.A.	IC501
VTR Main C.B.A.	IC2005

(Note)

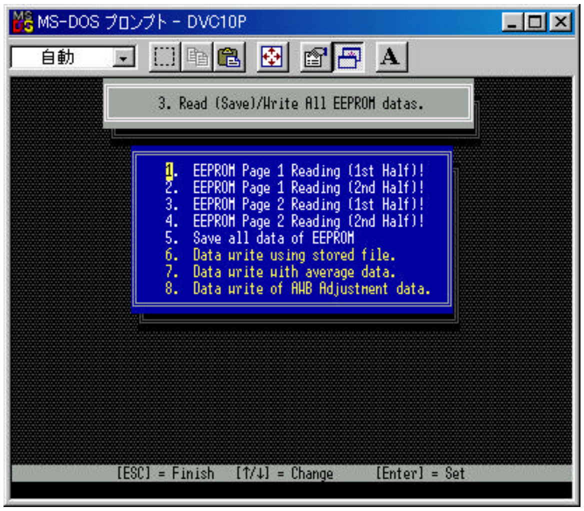
Be sure to save both the EEPROM data into the personal computer before performing service and adjustment; in order to avoid any accidental data loss.

3-1. How to Save Camera EEPROM Data

1) Select “1.Check [Camera].” In the Main menu, and then press the “Enter” key.
2) Select “3.Read [Save]/Write All EEPROM data” in the Camera check menu, and then press the “Enter” key.


MS-DOS プロンプト - DVC10P
自動
PC-EVR [TATSUJIN] < Model : AG-DVC10P(NTSC) >
Camera check menu
1. Adjustment Guide.
2. EEPROM/RAM Editor.
3. Read (Save)/Write All EEPROM datas.
4. Outer control.
5. Auto check (Lens drive).
Key assignment, How to adjust.

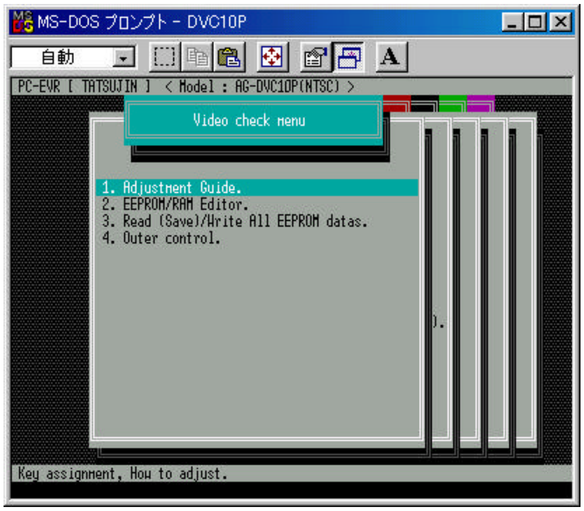
3) Select “5.Save all data of EEPROM” in Read [Save]/Write All EEPROM data menu, and then press the “Enter” key.


MS-DOS プロンプト - DVC10P
自動
3. Read (Save)/Write All EEPROM datas.
1. EEPROM Page 1 Reading (1st Half)!
2. EEPROM Page 1 Reading (2nd Half)!
3. EEPROM Page 2 Reading (1st Half)!
4. EEPROM Page 2 Reading (2nd Half)!
5. Save all data of EEPROM
6. Data write using stored file.
7. Data write with average data.
8. Data write of AWB Adjustment data.
[ESC] = Finish [↑/↓] = Change [Enter] = Set

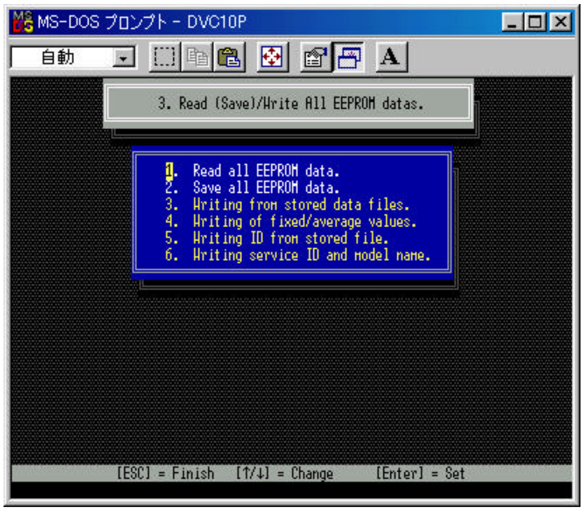
4) Type the File name and, then press the “Enter” key. The data of EEPROM (IC501) can be stored in the personal computer.

3-2. How to Save VTR Main EEPROM Data

1) Select “2.Check [Video].” In the Main menu, and then press the “Enter” key.
2) Select “3.Read [Save]/Write All EEPROM data” in the Video check menu, and then press the “Enter” key.


MS-DOS プロンプト - DVC10P
自動
PC-EVR [TATSUJIN] < Model : AG-DVC10P(NTSC) >
Video check menu
1. Adjustment Guide.
2. EEPROM/RAM Editor.
3. Read (Save)/Write All EEPROM datas.
4. Outer control.
Key assignment, How to adjust.

3) Select “2.Save all data of EEPROM data” in Read [Save]/Write All EEPROM data menu, and then press the “Enter” key.



```
3. Read (Save)/Write All EEPROM datas.

1. Read all EEPROM data.
2. Save all EEPROM data.
3. Writing from stored data files.
4. Writing of fixed/average values.
5. Writing ID from stored file.
6. Writing service ID and model name.

[ESC] = Finish   [↑/↓] = Change      [Enter] = Set
```

4) Type the File name, and then press the “Enter” key. The data of EEPROM (IC2005) will be stored in the personal computer.

3-3. REWRITE Saved Data

When it becomes impossible to adjust during service adjustment or the Camera Main on VTR Main C.B.A. is replaced, rewrite the saved data which is stored in EEPROM as follows. And readjust.

3-4. How to Rewrite Camera Main C.B.A. Saved Data

1) Select “1.Check [Camera].” In the Main menu, and then press the “Enter” key.
2) Select “3.Read [Save]/Write All EEPROM data” in the Camera check menu, and then press the “Enter” key.
3) Select “6.Data write using stored file” in Read [Save]/Write All EEPROM data menu, and then press the “Enter” key.
4) Type the saved file name, and then press the “Enter” key.
5) The data can be written in EEPROM (IC501).

3-5. How to Rewrite Video C.B.A. Saved Data

1) Select “2.Check [Video].” In the Main menu, and then press the “Enter” key.
2) Select “3.Read [Save]/Write All EEPROM data” in the Video check menu, and then press the “Enter” key.
3) Select “3.Writing from the stored data files” in the Read [Save]/Write All EEPROM data menu, and then press “Enter” key.
4) Type the saved file name, and then press the “Enter” key.
5) The data can be written in EEPROM (IC2005).

4. C.B.A. REPLACEMENT

4-1. How to Input ID Number

Save the data to the EEPROM (IC2005) after replacing VTR Main C.B.A.

1) Select “2.Check [Video].” In the Main menu, and then press the “Enter” key.
2) Select “3.Read [Save]/Write All EEPROM data” in the Video check menu, and then press the “Enter” key.
3) Select “5.Writing ID from the stored file.” In Read [Save]/Write All EEPROM data menu, and then press the “Enter” key. Type the saved file name, and then press the “Enter” key. The ID Number will be written automatically.

Note: The adjusted data has been saved in the EEPROM after each adjustments.

5. CAMERA ADJUSTMENT PROCEDURE

Be sure to save the Camera EEPROM data into the Personal Computer, before performing adjustment.

Perform the all PC-EVR adjustments, by referring to procedures on PC screen.

5-1. Hall Amp Adjustment

(Preparation)

1) Connect the Digital Volt Meter to “VREF-H/L” on the VFK1308P.
2) Set SW108 to “L” side and measure voltage.
3) Set low reference voltage on the PC-EVR screen by up or down keys.
4) Set SW108 to “H” side and measure voltage.
5) Set high reference voltage on the PC-EVR screen by up or down keys.

(Adjustment-Offset)

1) Connect the Digital Volt Meter to “FNO” on the VFK1308P.
2) Set SW107 to “CLOSE” side.
3) Adjust voltage to be in the specification as shown on screen.

(Adjustment-Gain)

1) Set SW107 to “OPEN” side.
2) Adjust voltage to be in the specification as shown on screen.

5-2. Iris PWM Adjustment

1) Set SW107 to “CENTER” position and automatically open the Iris.
2) Connect the Digital Volt Meter to “FNO” on the VFK1308P.
3) Adjust voltage to be in the specification as shown on in screen.

Note : Adjustment should be done from lower voltage to higher voltage.

5-3. Linear MR Adjustment

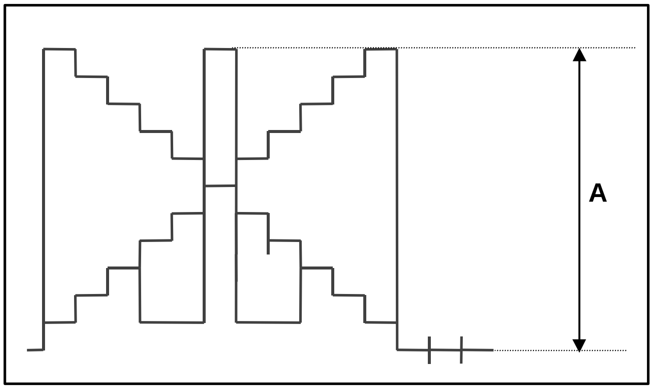
This adjustment is performed automatically.

5-4. Zoom Tracking Adjustment

1) Set the Collimator (VFK1164TCM01) on the front of the Lens with the 43mm attachment ring (VFK1164TAR44).
2) Set the Tracking chart (hunting chart) on the front of the Collimator. It is included in the VFK1164TCM01.
3) Under the Halogen lamp condition, turn the camcorder to dark place (Need to have an Approx.0.2 lux condition).
4) Adjustment is performed automatically.
5) After complete adjustment, confirm that it is in focus at both the telephoto and wide-angle positions during zoom operations.

5-5. AGC 0dB Adjustment

1) Connect the oscilloscope to “CDS/AGC” on the VFK1308P.
2) Aim the unit at Gray Scale chart under the halogen lamp condition (3100K, 1400Lux).
3) Set the Iris position by arrow keys so that the signal level (A) becomes 300mV±20mVp-p.



Note : Press the F2 key to see figure.

4) Connect the oscilloscope to “ADIN” on the VFK1308P.
5) Adjust the signal level (A) to become 300mV±20mVp-p.
6) Follow the message on the screen and adjust R channel and B channel.

Note : Press the F2 key to see figure.

5-6. AGC 12dB Adjustment

1) Connect the oscilloscope to “CDS/AGC” on the VFK1308P.
2) Aim the unit at Gray Scale chart under the halogen lamp condition (3100K, 1400Lux).
3) Set the Iris position by arrow keys so that the signal level (A) becomes 1200mV±40mVp-p.

Note : Press the F2 key to see figure.

4) Connect the oscilloscope to “ADIN” on the VFK1308P.
5) Adjust the signal level (A) to become 1200mV±40mVp-p.
6) Follow the message on the screen and adjust R channel and B channel.

Note : Press the F2 key to see figure.

5-7. AD Input Level Adjustment

1) Connect the oscilloscope to “CDS/AGC” on the VFK1308P.
2) Aim the unit at Gray Scale chart under the halogen lamp condition (3100K, 1400Lux).
3) Set the Iris position by arrow keys so that the signal level (A) becomes 1230mV±20mVp-p.

Note : Press the F2 key to see figure.

4) Connect the oscilloscope to “ADIN” on the VFK1308P.
5) Adjust the signal level (A) to become 1230mV±20mVp-p.
6) Follow the message on the screen and adjust R channel and B channel.

Note : Press the F2 key to see figure.

5-8. ALC Adjustment

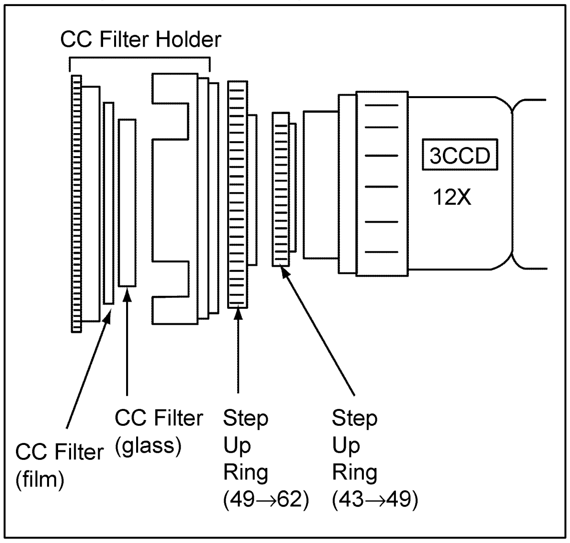
1) Connect the oscilloscope to “ADIN” on the VFK1308P.
2) Aim the unit at Gray Scale chart under the Halogen lamp condition (3100K, 1400Lux).
3) Adjust the signal level (A) becomes 1270mV±20mV.

Note : Press the F2 key to see figure.

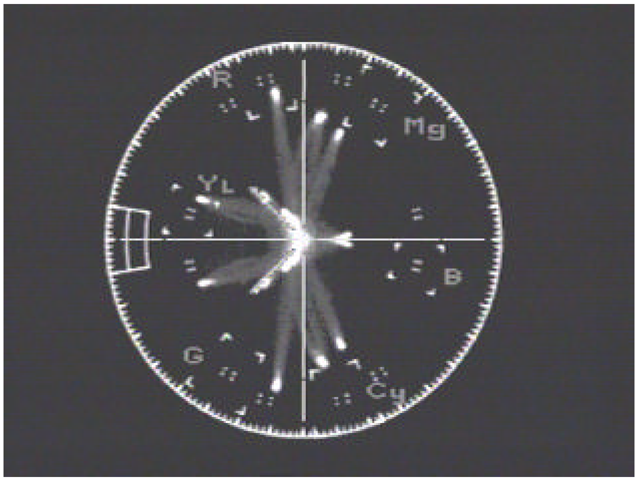
5-9. White Balance Adjustment

5-9-1. Indoor (3100K)WB Adjustment

1) Aim the unit at White Chart under the Halogen lamp condition (3100K, 1400Lux).

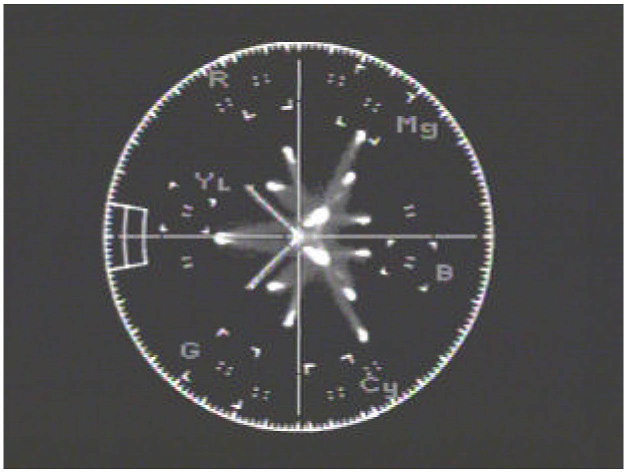


2) Set the Color Conversion filters (LB80 : VFK1342, LBA8 : VFK1696) on the front of lens with CC Filter holder (VFK1345) and the two Step Up Rings (VFK1659, VFK1660)
3) White balance adjustment is performed automatically.
4) Aim the unit at Color Chip Chart (YWV2100RB98).
5) Adjust R/G Gain, R/G Phase, B/G Gain and B/G Phase manually so that the Red and Yellow vector position becomes same as the standard vector figure as follows.



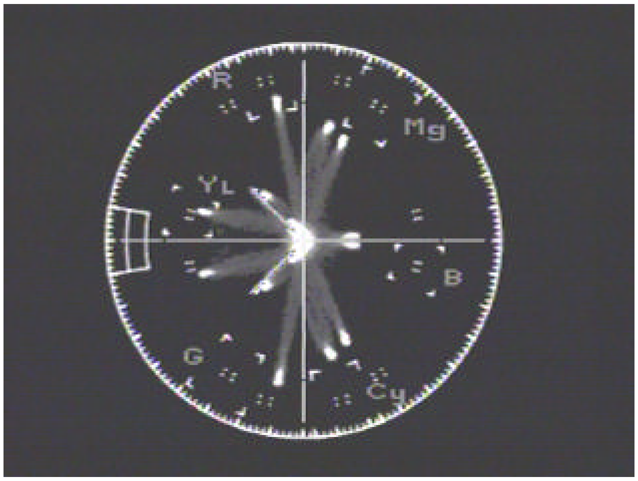
5-9-2. Outdoor (5100K)WB Adjustment

1) Set the Color Conversion filters (LB120:VFK1347, LBB4 : VFK1697) on the front of lens with CC Filter holder (VFK1345) and the two Step Up Rings (VFK1659, VFK1660).
2) White balance adjustment is performed automatically.
3) Aim the Color Chip Chart (YWV2100RB98).
4) Adjust R/G Gain, R/G Phase, B/G Gain and B/G Phase manually so that the Red and Yellow vector position becomes same as the standard vector figure as follows.



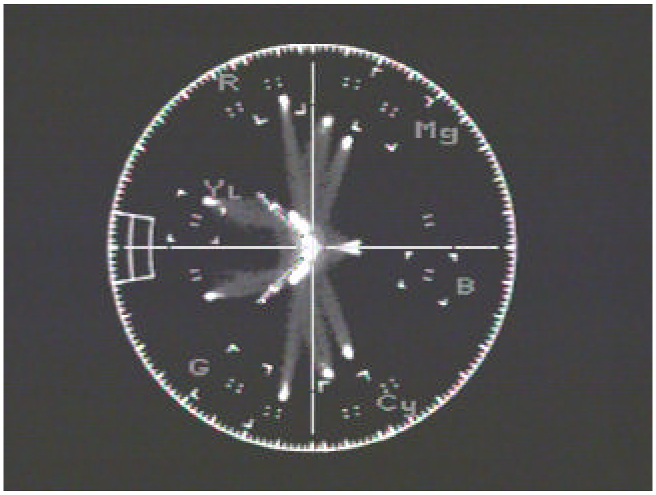
5-9-3. Cool White (4500K)WB Adjustment

1) Set the Color Conversion filters (LB120:VFK1347, LBA8 : VFK1696) on the from of lens with CC Filter holder (VFK1345) and the two Step Up Rings (VFK1659, VFK1660).
2) White balance adjustment is performed automatically.
3) Aim the unit at Color Chip Chart (YWV2100RB98).
4) Adjust R/G Gain, R/G Phase, B/G Gain and B/G Phase manually so that the Red and Yellow vector position becomes same as the standard vector figure as follows.



5-9-4. Warm White (2800K)WB Adjustment

1) Set the Color Conversion filters (LB40:VFK1341, LBA4 : VFK1695) on the from of lens with CC Filter holder (VFK1345) and the two Step Up Rings (VFK1659, VFK1660).
2) White balance adjustment is performed automatically.
3) Aim the unit at Color Chip Chart (YWV2100RB98).
4) Adjust R/G Gain, R/G Phase, B/G Gain and B/G Phase manually so that the Red and Yellow vector position becomes same as the standard vector figure as follows.



5-9-5. Indoor WB Data Measurement

1) Aim the unit at White Chart under the Halogen lamp condition (3100K, 1400Lux) with CC Filters (LB80 : VFK1342, LBA8 : VFK1696).
2) White balance data measurement is preloaded automatically.

5-9-6. Outdoor WB Data Measurement

1) Aim the unit at White Chart under the Halogen lamp condition with CC Filters (LB120 : VFK1347, LBB4 : VFK1697).
2) White balance data measurement is preloaded automatically.

5-9-7. Cool WB Data Measurement

1) Aim the unit at White Chart under the Halogen lamp condition with CC Filters (LB120 : VFK1347, LBA8 : VFK1696).
2) White balance data measurement is preloaded automatically.

5-9-8. Warm WB Data Measurement

1) Aim the unit at White Chart under the Halogen lamp condition with CC Filters (LB40 : VFK1341, LBA4 : VFK1695).
2) White balance data measurement is preloaded automatically.

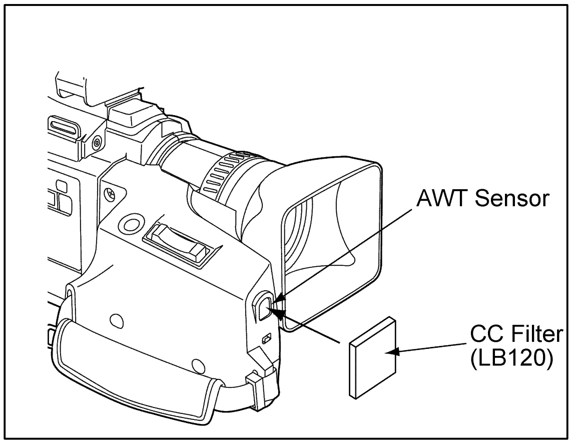
5-10. AWT Sensor Adjustment

5-10-1. AWT Sensor Offset Adjustment

1) Aim the unit at White Chart under the Halogen lamp condition without the CC Filter.
2) Adjustment is performed automatically.

5-10-2. AWT Sensor Normalize

1) Aim the unit at White Chart under the Halogen lamp condition.
2) Cover the CC Filter (LB120:VFK1347) on the front of the AWT Sensor.



3) Adjustment is performed automatically.

6. VIDEO ADJUSTMENT

6-1. Sensitivity Adjustment

1) Set the Camera/VCR switcher to “Camera” position.
2) Insert the Tape End/Beg. Sensor Cassette (VFK1217) into the Unit.
3) Press Enter key to perform adjustment automatically.

6-2. Luminance Level Adjustment

1) Connect the Oscilloscope to the Video Output with 75 ohm terminate.
2) Adjust the Y level to become 714±10mV as shown figure.

Note: Press the F2 Key to see figure.

6-3. Color Level Adjustment

1) Connect the Oscilloscope to the Video Output with 75 ohm terminate.
2) Adjust the Burst level to become 286±20mV as shown in figure.

Note: Press the F2 Key to see figure.

6-4. Video VCO Adjustment

1) Connect the Frequency counter to “VCO” on the VFK1308P.
2) Adjust the VCO frequency to become 41.85MHz±200KHz.

6-5. PG Shifter Adjustment

1) Insert the Color Bar Alignment tape (VFM3010EDS) into the Unit.
2) Adjustment is performed automatically.

6-6. RF.VITERBI Adjustment

1) Insert the self-recorded tape into the Unit.
2) Press TAB Key to start the Automatic adjustment.

7. EVF ADJUSTMENT

7-1. PLL Adjustment (Normal)

1) Connect the oscilloscope to “MON-PLL” on the VFK1308P.
2) Adjust the width (T) to become 1.8±0.1µsec as shown in figure when press the F2 Key.

7-2. PLL Adjustment (Wide)

1) Connect the oscilloscope to “MON-PLL” on the VFK1308P.
2) Adjust the width (T) to become 2.3±0.1µsec as shown in figure when press the F2 Key.

7-3. Pedestal Level Adjustment

1) Connect the oscilloscope to “MON-G” on the VFK1308P.
2) Adjust the pedestal level to become 4.1±0.1V as shown in figure when press the F2 Key.

7-4. Pedestal Level Adjustment

1) Connect the oscilloscope to “MON-G” on the VFK1308P.
2) Adjust level to become 3.4±0.1V as shown in figure when press the F2 Key.

7-5. Gamma Level Adjustment

1) Connect the oscilloscope to “MON-G” on the VFK1308P.
2) Adjust V level to become 2.1±0.1V as shown in figure when press the F2 Key.

7-6. Color Level Adjustment

1) Connect the oscilloscope to “MON-B” on the VFK1308P.
2) Adjust V level to become 0.4±0.1V as shown in figure when press the F2 Key.

7-7. White Balance Adjustment

1) Set the Lens Cap on front of the Lens.
2) Connect the Video out to the monitor TV.
3) Compare the white level between the EVF and the Monitor TV. If there is a big difference so that white level (Phase) becomes almost same.

SECTION 4

MECHANICAL ADJUSTMENTS

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1.MECHANICAL MAINTENANCE

1-1. Mechanical Parts Location

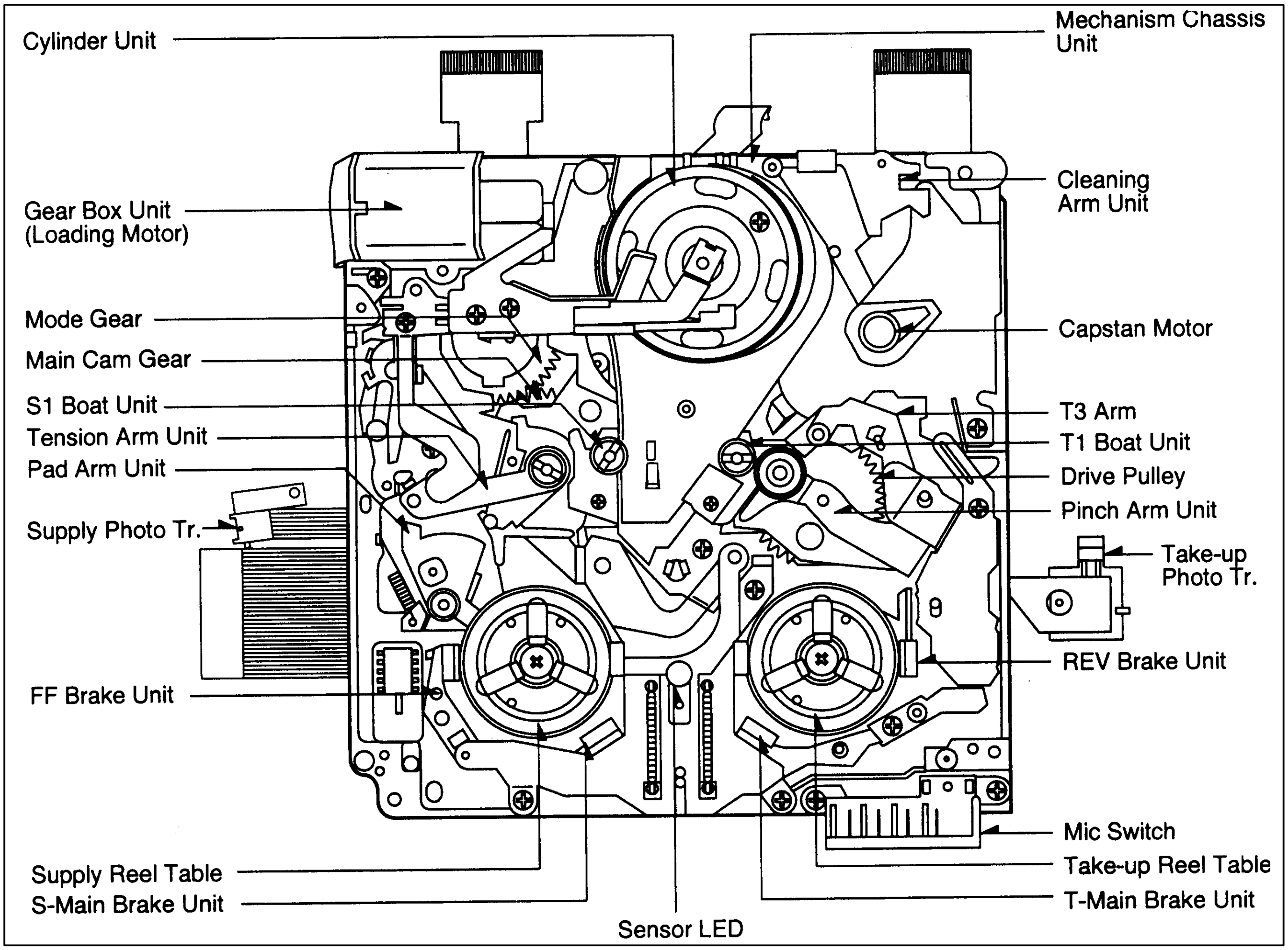

Cylinder Unit
Mechanism Chassis Unit
Gear Box Unit (Loading Motor)
Cleaning Arm Unit
Mode Gear
Capstan Motor
Main Cam Gear
S1 Boat Unit
T3 Arm
Tension Arm Unit
T1 Boat Unit
Pad Arm Unit
Drive Pulley
Pinch Arm Unit
Supply Photo Tr.
Take-up Photo Tr.
REV Brake Unit
FF Brake Unit
Mic Switch
Supply Reel Table
Take-up Reel Table
S-Main Brake Unit
T-Main Brake Unit
Sensor LED

Figure M1

1-2. Regular Maintenance

The purpose of periodic maintenance is to preserve the functioning throughout its useful life.

The user or service dealer should perform these maintenance regularly to ensure that maximum utility is obtained from the machine.

The VCR is complicated place of equipment. It contains many belts, rollers, heads etc., which become worn, and deteriorate as time goes by, causing trouble. Dust and dirt will also impede the proper functioning of the machine. In light of this, t is very important that overall maintenance be done according to the maintenance chart to maintain the functions of the VCR, and to avoid accidental problems. This maintenance should also be performed after any repairs are done on the equipment. The VCR used for business applications requires particular attention for several reasons. The installation conditions and applications are not always the best. Long use times, or poor environmental conditions may adversely affect the life span and performance of the machine. Regular maintenance assures that the purchaser obtains the maximum value for his expenditure. Accordingly, the necessity of regular maintenance should be fully explained at the time of sale, as well as during after-sale repairs.

1-2-1. MAINTENANCE CHART

The following periodic maintenance is required to maintain AG-DVC15E in good condition.

No.	Part Name	Part No.	Cleaning	Replacement	Remark
	Tape Transport Part	------	100 hours	------	*1
1	Cylinder Unit	VEG1573	100 hours	Every 1000 hours	
2	Pinch Arm Unit	VXL2464	------	Every 1000 hours	
3	Cleaning Arm Unit	VXL2468	------	Every 1000 hours	
4	Gear Box	VXA5417	------	Every 1000 hours	
5	REV Brake Unit	VXZ0323	------	Every 1000 hours	
6	FF Brake Unit	VXZ0322	------	Every 1000 hours	
7	S-Main Brake Unit	VXZ0321	------	Every 1000 hours	
8	T-Main Brake Unit	VXZ0319	------	Every 1000 hours	
9	Supply Reel Table	VXR0355	------	Every 1000 hours	
10	Take-up Reel Table	VXR0356	------	Every 1000 hours	
11	Made Cam SW Unit	VSR0114	------	Every 1000 hours	
12	Main Cam Gear	VXA5407	------	Every 1000 hours	
13	S1 Boat Unit	VXA5409	------	Every 1000 hours	
14	T1 Boat Unit	VXA5410	------	Every 1000 hours	
15	Tension Arm Unit	VXL2456	------	Every 1000 hours	
16	Pad Arm Unit	VXL2458	------	Every 1000 hours	
17	Mechanism Chassis Unit	VXY1598	------	Every 3000 hours	*2

Figure M2

Note;

Using hours are based on the head rotation hours.(No hour meter in this Camera Recorder.)

Using hours are recommendation. It may depend on temperature, humidity, quality of tape or dust condition.

Using hours are listed as the reference of maintenance. They do not mean guarantee hours.

*1 Tape transport parts mean following parts.
(Tension Post, S3 Post, S2 Post, S1Roller, Cylinder & Heads,T1 Roller, T2 Post, Capstan Shaft, Pinch Roller and T3 Post)

*2 Parts listed No.1 thorough 15 are included in Mechanical Chassis Unit. Replacing the Mechanism Chassis Unit is recommended every 3000 hours.

1-3. Disassembly/Assembly Procedures of Mechanism

1-3-1.Disassembly Flowchart

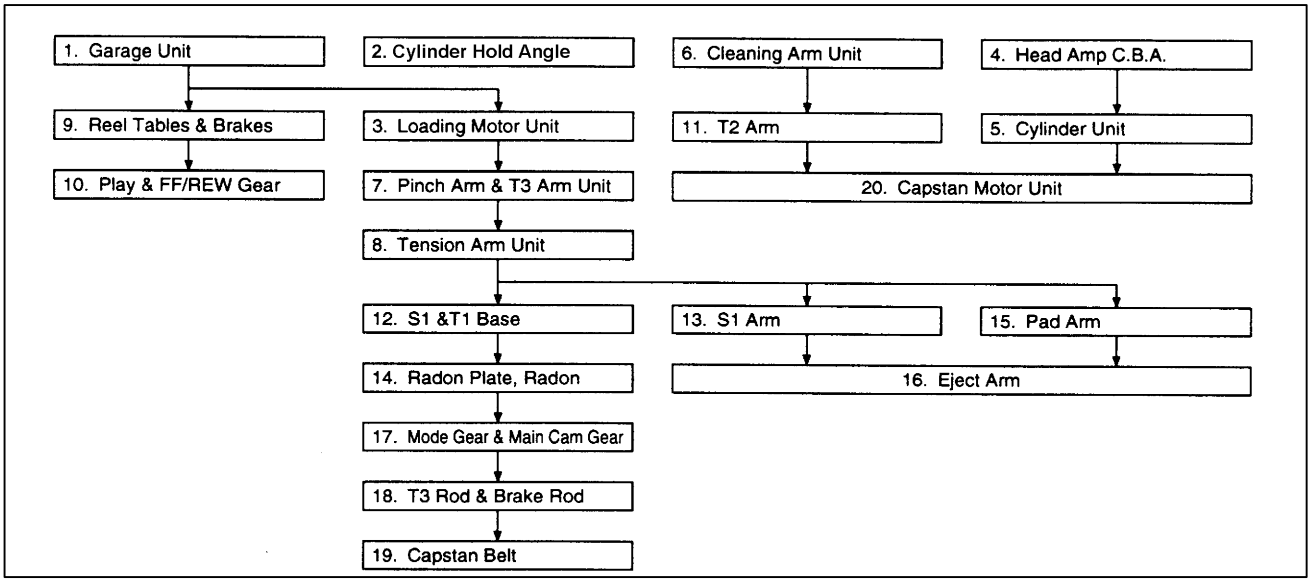

1. Garage Unit
2. Cylinder Hold Angle
6. Cleaning Arm Unit
4. Head Amp C.B.A.
9. Reel Tables & Brakes
3. Loading Motor Unit
11. T2 Arm
5. Cylinder Unit
10. Play & FF/REW Gear
7. Pinch Arm & T3 Arm Unit
20. Capstan Motor Unit
8. Tension Arm Unit
12. S1 &T1 Base
13. S1 Arm
15. Pad Arm
14. Radon Plate, Radon
16. Eject Arm
17. Mode Gear & Main Cam Gear
18. T3 Rod & Brake Rod
19. Capstan Belt

Figure M3

1-3-2. Manual Loading / Unloading

For the mechanism maintenance, loading and unloading operation can be manually performed.
In order to perform manual loading and unloading easily, use Gear Driver (VFK1266) as shown in Figure M4.

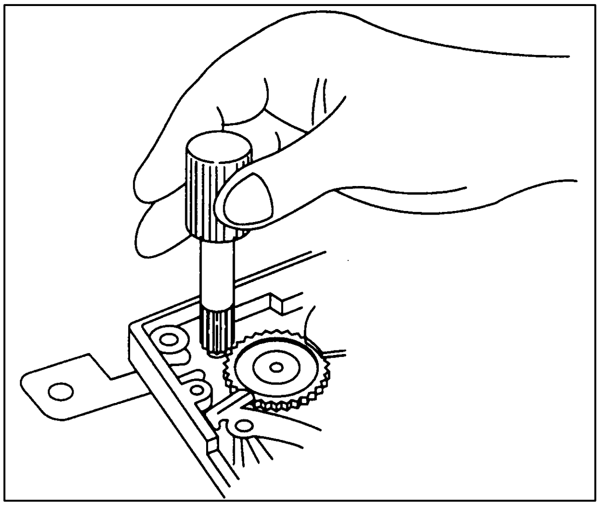


Figure M4

Rotate the Gear Driver clockwise or counterclockwise so that the Mode Cam Gear rotates opposite direction of the Gear Driver rotation, and then loading and unloading are performed

1-3-3. Disassembly Procedures

1-3-3-1. Garage Unit

1. Slide the Lock Lever with tweezers to eject the Garage.

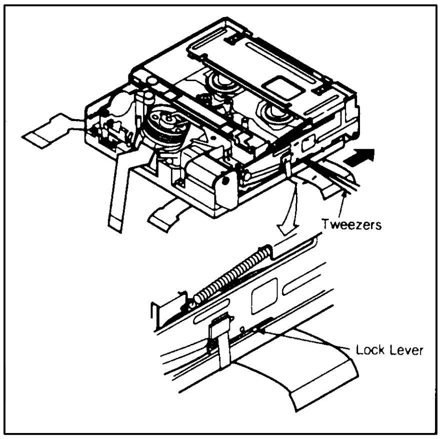

Tweezers
Lock Lever

Figure M5

(Manual Eject)
Unscrew 2 screws (A) and removes Supply and Take-up Photo Transistors from Garage Unit. Unscrew 4 screws (B) and remove the Garage Unit.

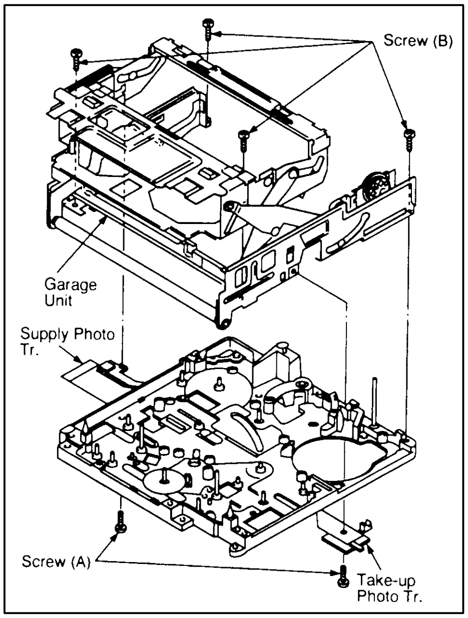

Screw (B)
Garage Unit
Supply Photo Tr.
Screw (A)
Take-up Photo Tr.

Figure M6

1-3-3-2. Cylinder Hold Angle

1. Unscrew 2 screws (C) and remove the Earth Brush.

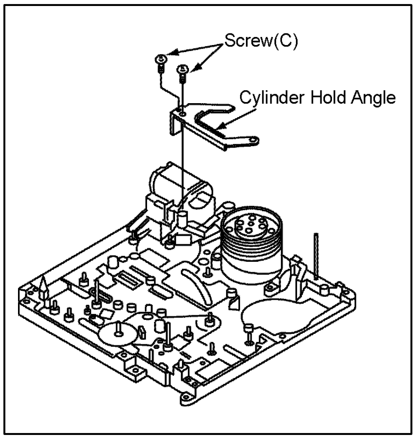

Screw(C)
Cylinder Hold Angle

Figure M7

(Note of installation)
Install the Cylinder Hold Angle so that the tip of Angle is located in the P.C.Board.

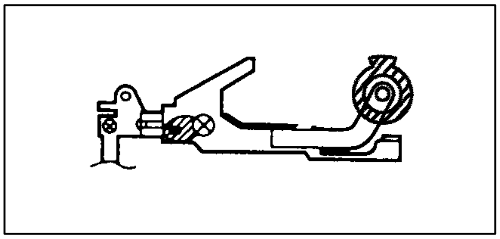


Figure M8

1-3-3-3. Loading Motor Unit

1. Unsolder the soldered portion (D). Unscrew 2 screws (E) and remove the Loading Motor Unit.

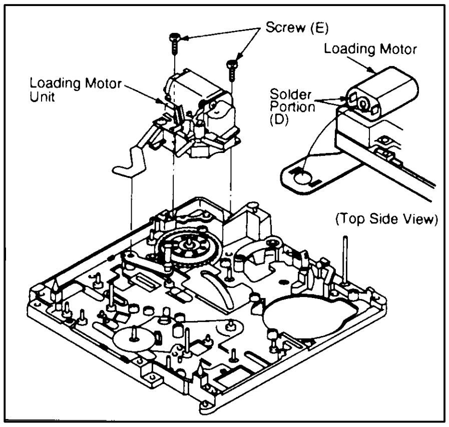

Screw (E)
Loading Motor
Loading Motor Unit
Solder Portion (D)
(Top Side View)

Figure M9

1-3-3-4. Head Amp C.B.A.

1. Unscrew screw (F) and remove the Capstan Cover. Disconnect FP5001.Disconnect Unscrew 2 screws (G) and remove the Head Amp C.B.A.

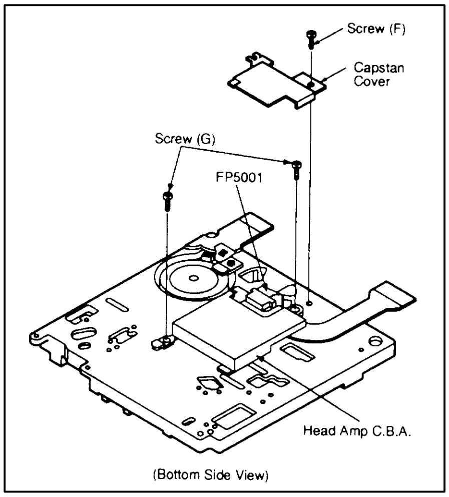

Screw (F)
Capstan Cover
Screw (G)
FP5001
Head Amp C.B.A.
(Bottom Side View)

Figure M10

1-3-3-5. Cylinder Unit

1. Unscrew 3 screws (H) and remove the Cylinder Unit carefully. Do not touch the Video Head.

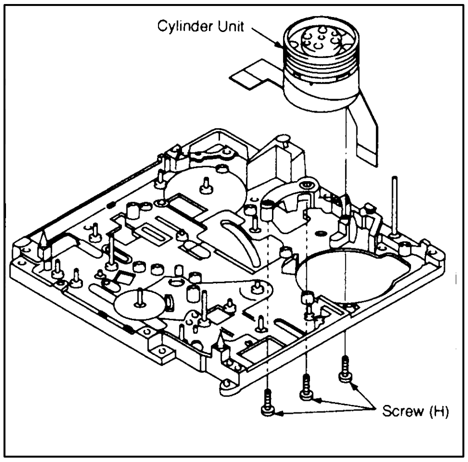

Cylinder Unit
Screw (H)

Figure M11

1-3-3-6. Cleaning Arm Unit

1. Unlock the locking portion of the Cleaning Arm Unit.

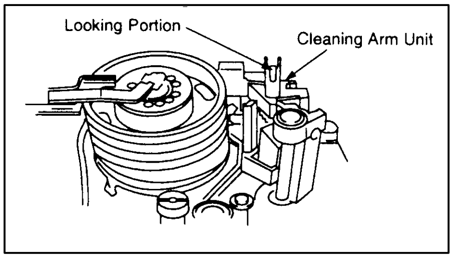

Looking Portion
Cleaning Arm Unit

Figure M11

(Note of installation)

Hooking portion of the Cleaning Arm Spring is;

Spring (a) -- Cleaning Arm spring (a')

Spring (b) -- T2 Arm Unit (b')

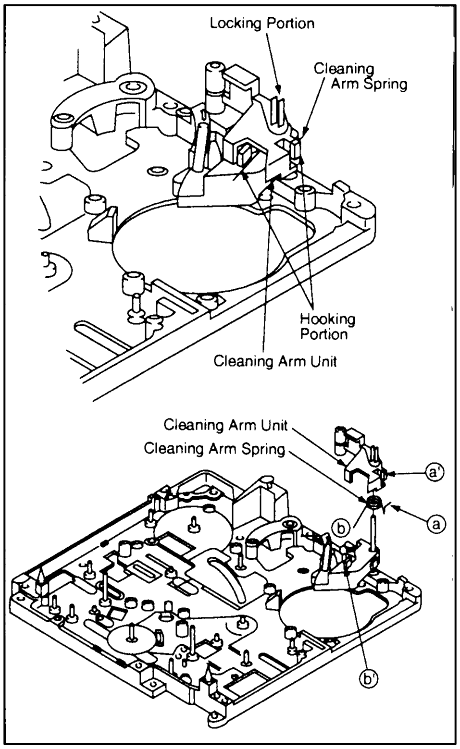

Locking Portion
Cleaning Arm Spring
Hooking Portion
Cleaning Arm Unit
Cleaning Arm Unit
Cleaning Arm Spring
a'
a
b
b'

Figure M13

1-3-3-7. Pinch Arm & unlock T3

1. Unscrew screw (I), then slide the Pinch Pressure Plate and unlock the locking portion.

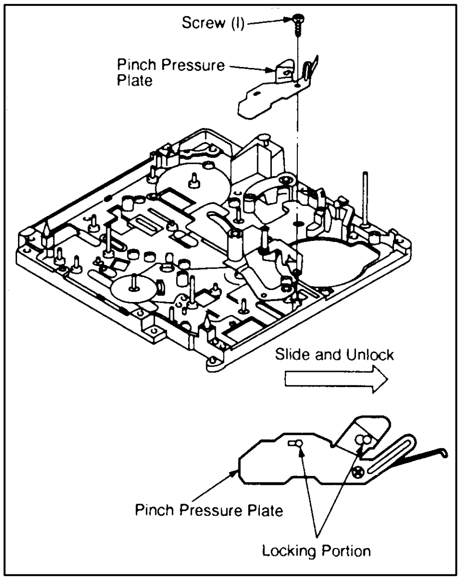

Screw (I)
Pinch Pressure Plate
Slide and Unlock
Pinch Pressure Plate
Locking Portion

Figure M14

(Note of installation)
Remove the T3 Arm Unit.
After install T3 Arm Unit, the Height Adjustment is required.

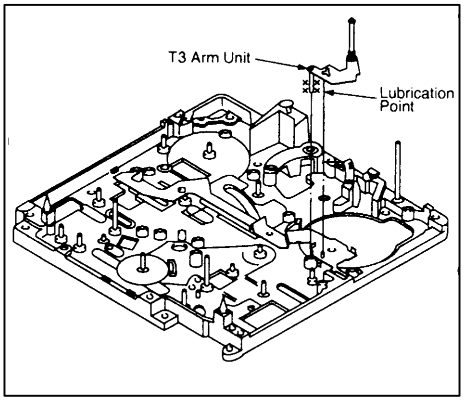

T3 Arm Unit
Lubrication Point

Figure M15

(Note of installation)
Remove the Pinch Arm Unit and Pinch Arm Spring.

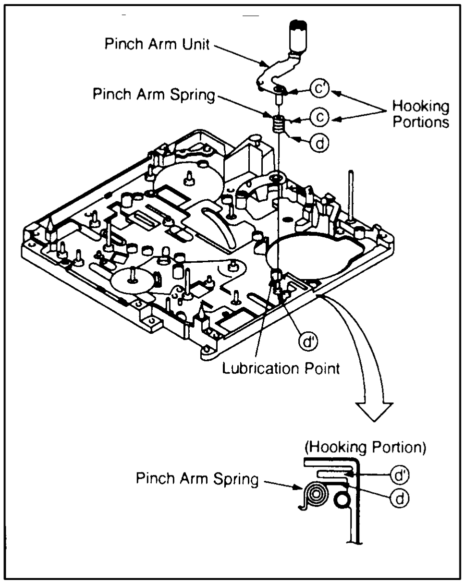

Pinch Arm Unit
Pinch Arm Spring
c'
c
d
Hooking Portions
d'
Lubrication Point
(Hooking Portion)
Pinch Arm Spring
d'
d

Figure M16

(Note of installation)
Hooking portion of the Pinch Arm Spring is;
Spring (c) -- Pinch Arm (c')
Spring (d) -- T3 Rod (d')

1-3-3-8. Tension Arm Unit

1. Turn the Mode Gear counter-clockwise until Tension Arm Unit slightly move to loading direction. Remove the Tension Arm Unit and Cut Washer (J).

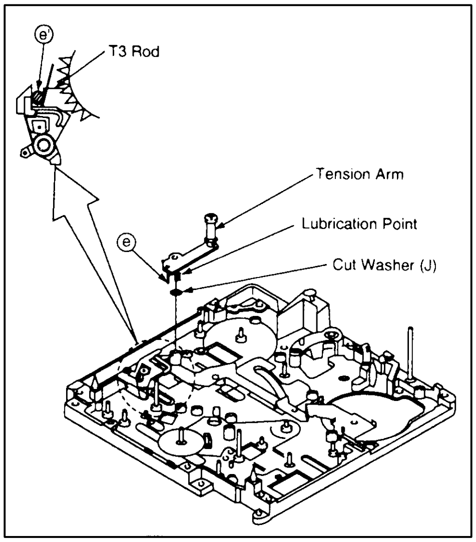

e'
T3 Rod
Tension Arm
Lubrication Point
e
Cut Washer (J)

Figure M17

(Note of installation)
The projection (e) on Tension Arm meets guide (e') on the T3 Rod which is shifted by turning Mode Gear.

1-3-3-9. Reel Tables & Brakes

1. Unhook the hooking portion (f) and (f'). Unscrew 3 screws (K) and remove Cover Plate.

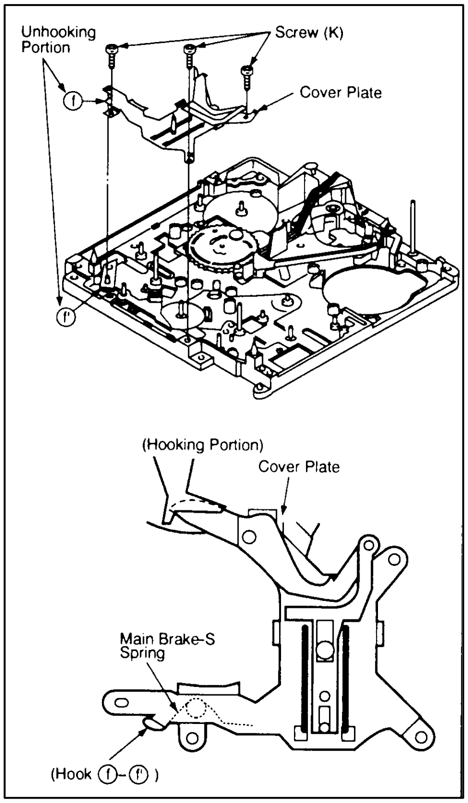

Unhooking Portion
Screw (K)
f
Cover Plate
f'
(Hooking Portion)
Cover Plate
Main Brake-S Spring
(Hook f-f')

Figure M18

2. Remove Supply and Take-up Reel Tables.

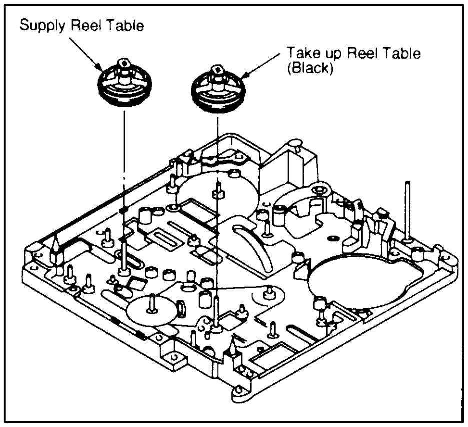

Supply Reel Table
Take up Reel Table (Black)

Figure M19

3. Unhook the hooking portion (g) and (g') of the Review Brake Spring and remove Review Brake.

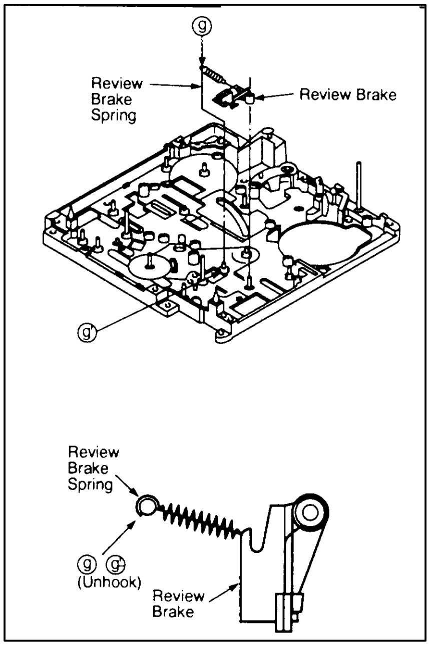

ⓖ
Review Brake Spring
Review Brake
ⓖ'
Review Brake Spring
ⓖ ⓖ' (Unhook)
Review Brake

Figure M20

4. Remove the FF Brake and FF Brake Spring.

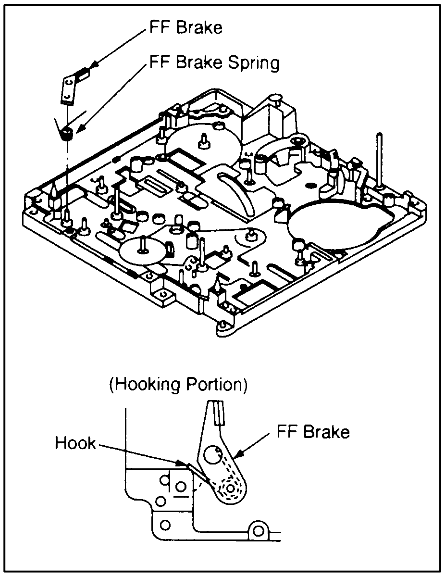

FF Brake
FF Brake Spring
(Hooking Portion)
Hook
FF Brake

Figure M21

(Note of installation)
Confirm the hooking portion of the FF Brake Spring.

5. Remove the Main Brake S and Main Brake-S Spring.

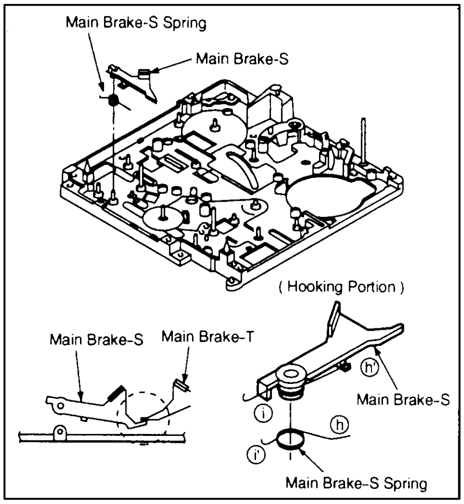

Main Brake-S Spring
Main Brake-S
(Hooking Portion)
Main Brake-S
Main Brake-T
ⓗ'
ⓘ
Main Brake-S
ⓗ
ⓘ'
Main Brake-S Spring

Figure M22

(Note of installation)
Confirm the hooking portion of the Main Brake-S Spring.

6. Remove the Cut Washer (L) and Main Brake T Unit.

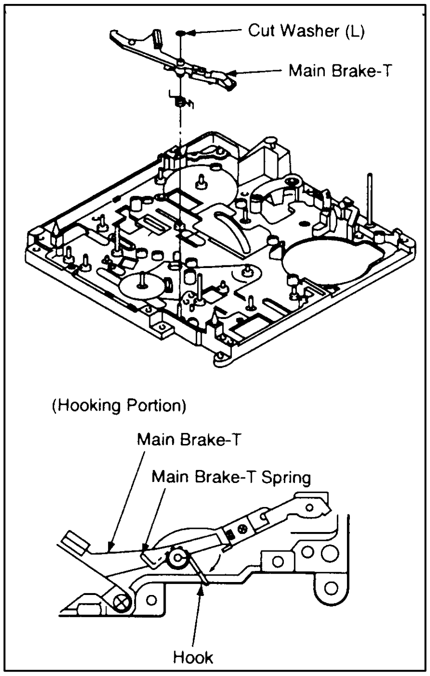

Cut Washer (L)
Main Brake-T
(Hooking Portion)
Main Brake-T
Main Brake-T Spring
Hook

Figure M23

(Note of installation)
Confirm the hooking portion of the Main Brake T Spring.

1-3-3-10. Play & FF/REW Gear

1. Remove the Play Idler and Play Gear.

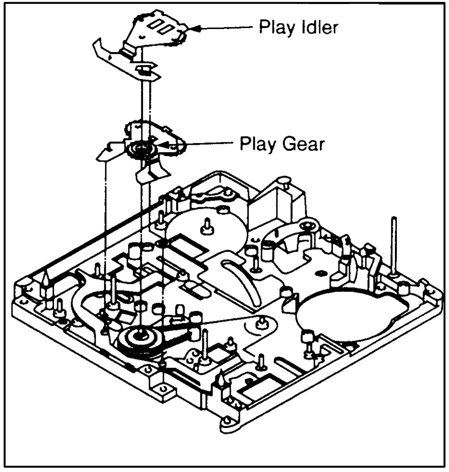

Play Idler
Play Gear

Figure M24

1-3-3-11. T2 Arm Unit

1. Remove the Cut Washer (M) and T2 Arm Unit with spring.

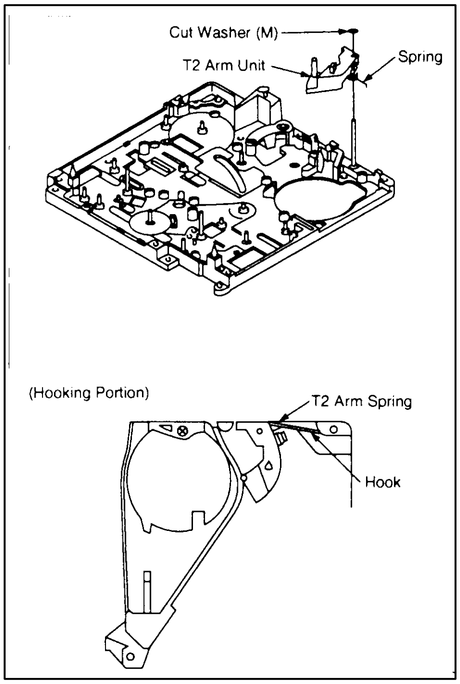

Cut Washer (M)
T2 Arm Unit
Spring
(Hooking Portion)
T2 Arm Spring
Hook

Figure M25

(Note of installation)
Confirm the hooking portion of the T2 Arm Spring.

1-3-3-12. S1 & T1 Base

1. Turn the Mode Gear counter-clockwise until half loading position. Hold (N) and (O) positions on S1 and T1 Arm units and then unlock the locking portions (A) and (B) with tweezers.

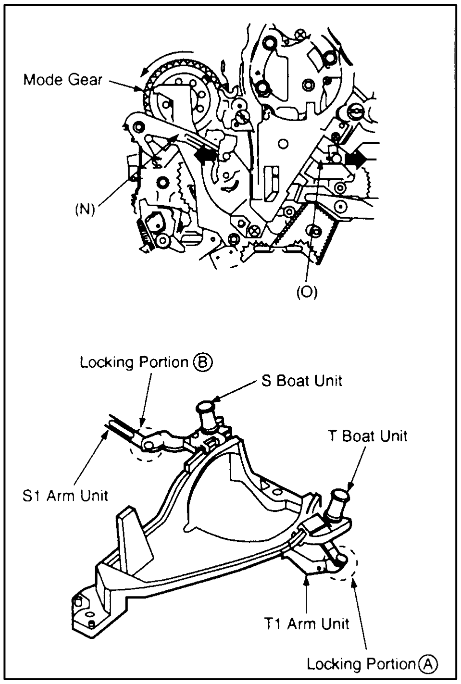

Mode Gear
(N)
(O)
Locking Portion Ⓑ
S Boat Unit
T Boat Unit
S1 Arm Unit
T1 Arm Unit
Locking Portion Ⓐ

Figure M26

2. Remove 2 screws (P) and Cylinder Base Unit with S and T Boat Units. Then remove S and T Boat Units from the Cylinder Base Unit.

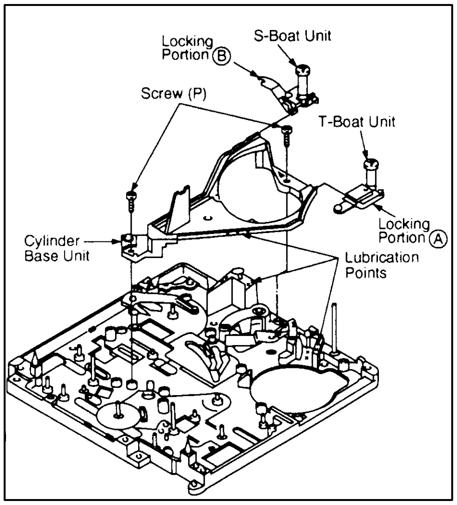

Locking Portion Ⓑ
S-Boat Unit
Screw (P)
T-Boat Unit
Locking Portion Ⓐ
Cylinder Base Unit
Lubrication Points

Figure M27

(Note of installation)
After install the Cylinder Base Unit move, S and T Boat to loading completed position by finger and turn the Mode Gear clockwise until half loading position. Then connect the locking portion (A) and (B).

1-3-3-13. S1 Arm

1. Turn the Mode Gear fully counter-clockwise. Remove the Cut Washer (Q) and S1 Arm Unit.

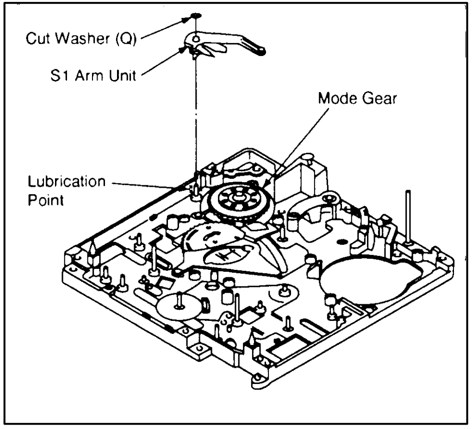

Cut Washer (Q)
S1 Arm Unit
Mode Gear
Lubrication Point

Figure M28

1-3-3-14. Radon Plate, Radon Arm & T1 Arm

1. Unscrew 2 screws (R) and remove Radon Plate.

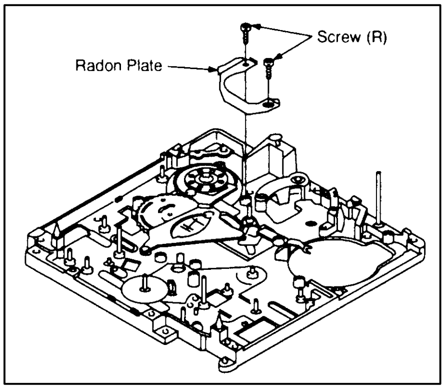

Screw (R)
Radon Plate

Figure M29

2. Unscrew screw (S) and remove Radon Arm Unit.

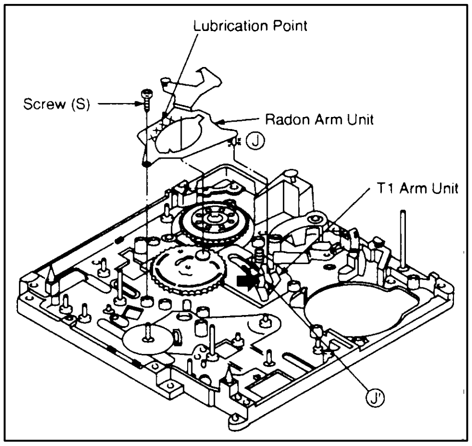

Lubrication Point
Screw (S)
Radon Arm Unit
Ⓙ
T1 Arm Unit
J'

Figure M30

(Note of installation)
When installing the T1 Arm Unit, the projection (j) on the Radon Arm Unit is aligned to guide (j') on the T1 Arm Unit by pushing the T1 Arm Unit.

3. Remove the T1 Arm Unit.

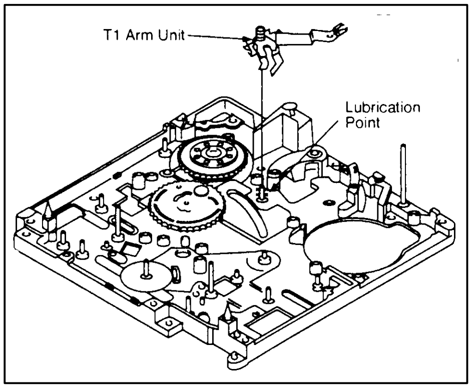

T1 Arm Unit
Lubrication Point

Figure M31

1-3-3-15. Pad Arm

1. Unhook the hooking portion (k') of the Pad Arm Spring. Remove the Cut Washer (T) and Pad Arm Unit.

(Note of installation)
Confirm the hooking portion of the Pad Arm Spring(k..k').

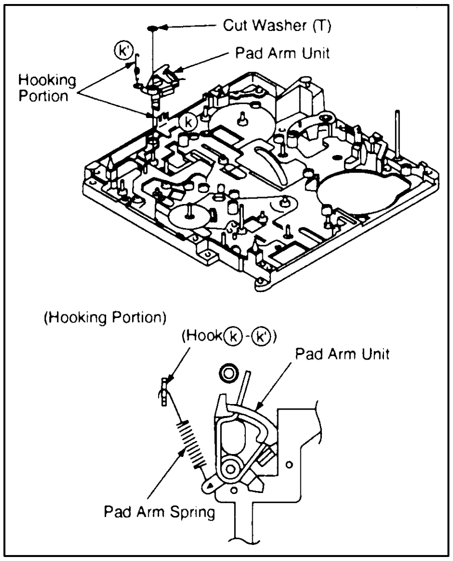

Cut Washer (T)
ⓚ'
Pad Arm Unit
Hooking Portion
ⓚ
(Hooking Portion)
(Hook ⓚ - ⓚ')
Pad Arm Unit
Pad Arm Spring

Figure M32

1-3-3-16. Eject Arm

1. Unscrew 2 screws(U) and remove the Eject Arm Unit.

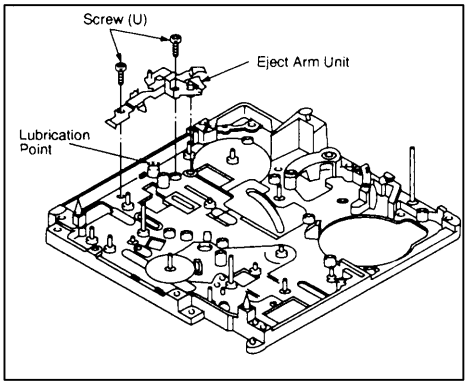

Screw (U)
Eject Arm Unit
Lubrication Point

Figure M33

1-3-3-17. Mode Gear & Main Cam Gear

1. Remove the Main Cam Gear. Unsolder the soldered portion (l) on the Mechanism Flexible Board. Then remove the Mode Gear.

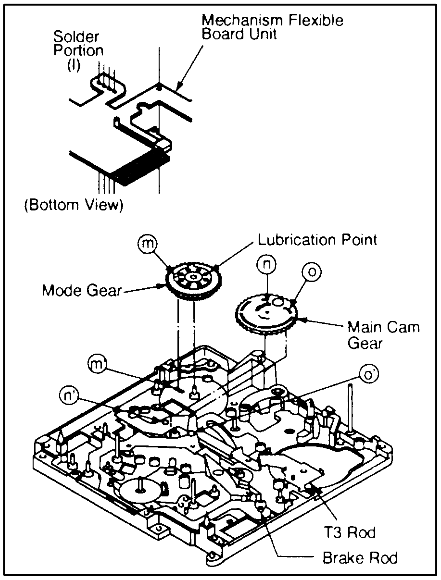

Solder Portion (l)
Mechanism Flexible Board Unit
(Bottom View)
ⓜ
Lubrication Point
ⓝ
ⓞ
Mode Gear
Main Cam Gear
ⓜ'
ⓝ'
ⓞ'
T3 Rod
Brake Rod

Figure M34

(Note of installation)
The projection (m) on the Mode Gear meets with the hole (m') on the Mechanism Chassis.
Push the Brake and T3 Rod in fully left direction.

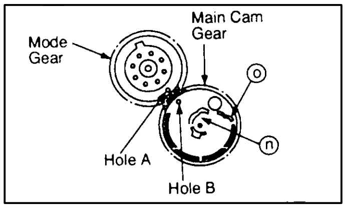

Main Cam Gear
Mode Gear
ⓞ
ⓝ
Hole A
Hole B

Figure M35

Install the Main Cam Gear so that the hole A on the Mode Gear is aligned to meet with the hole B on the Main Cam Gea

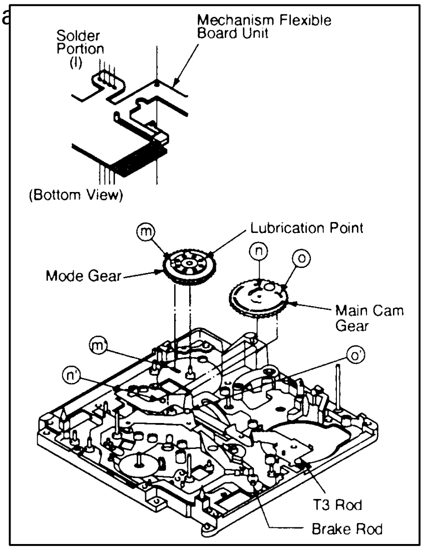

Solder Portion (l)
Mechanism Flexible Board Unit
(Bottom View)
ⓜ
Lubrication Point
ⓝ
ⓞ
Mode Gear
Main Cam Gear
ⓜ'
ⓝ'
ⓞ'
T3 Rod
Brake Rod

Figure M34

Shift the T3 Rod slowly in the right direction until guide (n) on the Main Cam Gear meets with the projection (n') on the T3 Rod.

Shift the Brake Rod slowly in the right direction until guide (o) on the Main Cam Gear meets with the projection(o')
on the brake Rod.

1-3-3-18. T3 Rod & Brake Rod

1. Remove the T3 Rod. The projection (p) and (q) on the T3 Rod meet with the guide (p') and (q') on the Mechanism Chassis

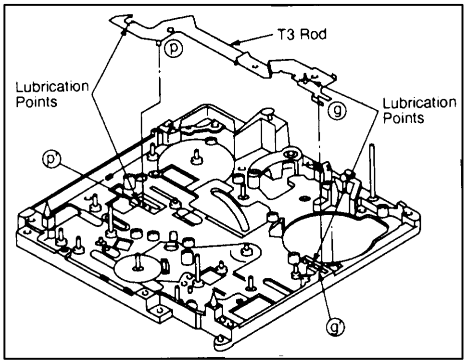

T3 Rod
Lubrication Points
p
Lubrication Points
q
p'
q'

Figure M36

2. Unscrew 2 screws (V) and remove the Brake Rod, Brake Rod Plate A and B.

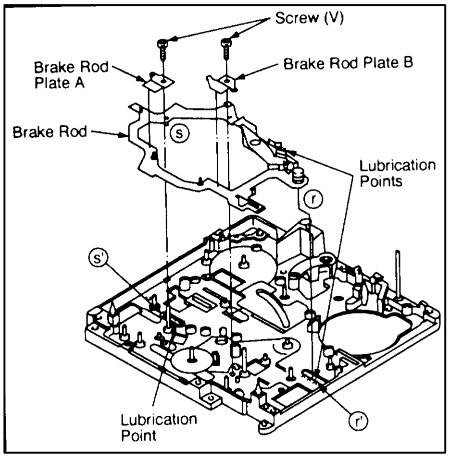

Screw (V)
Brake Rod Plate A
Brake Rod Plate B
Brake Rod
s
Lubrication Points
r
s'
Lubrication Point
r'

Figure M37

(Note of installation)
The projection (r) and (s) on the Brake Rod meet with the guide (r') and (s') on the Mechanism Chassis.

1-3-3-19. Capstan Belt

1. Remove the Center Gear and Washer (W). Unscrew screw (X) and remove LED Holder. Remove Cut Washer (Y).

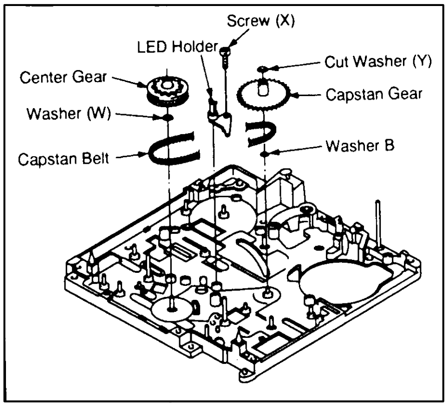

Screw (X)
LED Holder
Cut Washer (Y)
Center Gear
Capstan Gear
Washer (W)
Washer B
Capstan Belt

Figure M38

(Loosen a black screw on the Cap. Motor as shown in Fig.M36.) Slightly lift up in the direction and slowly remove the Capstan Gear. Do not bend the Capstan Shaft.

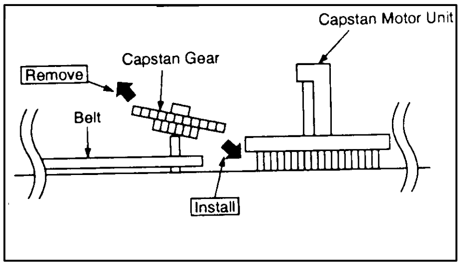

Capstan Motor Unit
Capstan Gear
Remove
Belt
Install

Figure M39

(Note of installation)
After install Capstan Gear, confirm no warp of the Capstan Gear, no bend of the Capstan Gear Shaft and smooth rotation of the Capstan and Center Gear.

2. Remove the Capstan Belt.

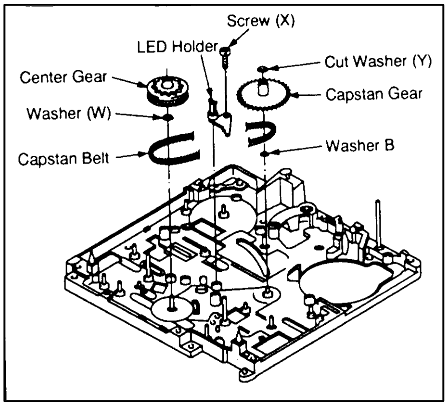

Screw (X)
LED Holder
Cut Washer (Y)
Center Gear
Capstan Gear
Washer (W)
Washer B
Capstan Belt

Figure M38

2.MECHANICAL ADJUSTMENT AND CONFIRMATION

When the following parts are replaced, the mechanical adjustment is required.

Tension Post
T3 Post
Pad Arm Unit
Supply or Take-up Reel Tables

2-1. Tension Post & T3 Post Height Adjustment

1. Set the Mechanism Plate (VFK1281) on the Mechanism Chassis.

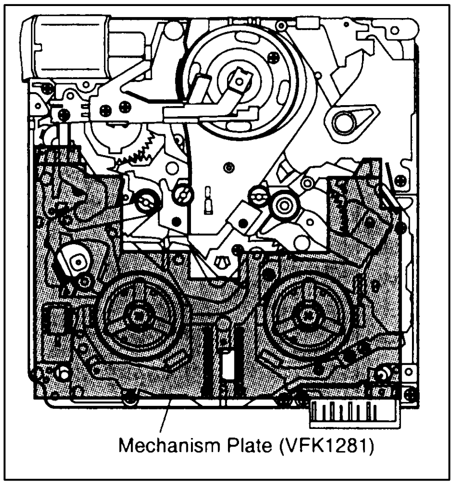

Mechanism Plate (VFK1281)

Figure M41

2. Turn the Mode Gear fully counterclockwise to make full loading condition by using Loading Gear Driver (VFK1276).

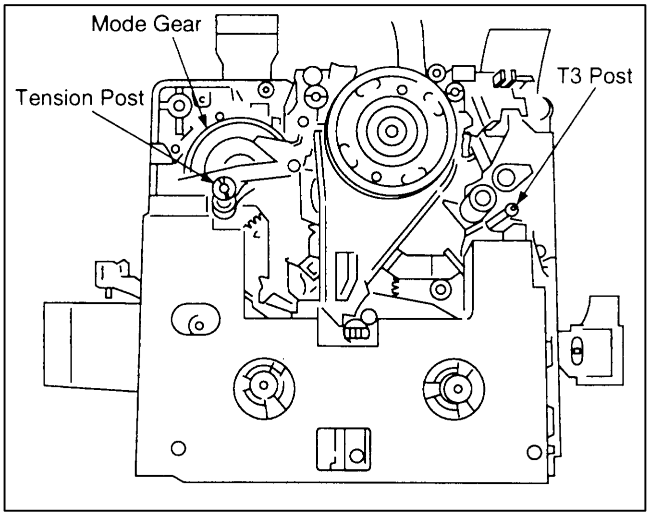

Mode Gear
Tension Post
T3 Post

Figure M42

3. Adjust the Tension Post so the lower flange (A) point become same height of the top surface (B) of 2nd step of the Mechanism Plate as shown in Fig.A43.
4. Adjust the T3 Post so that the lower flange (C) point become same height of the top surface (D) of the Mechanism Plate as shown in Fig.A43.

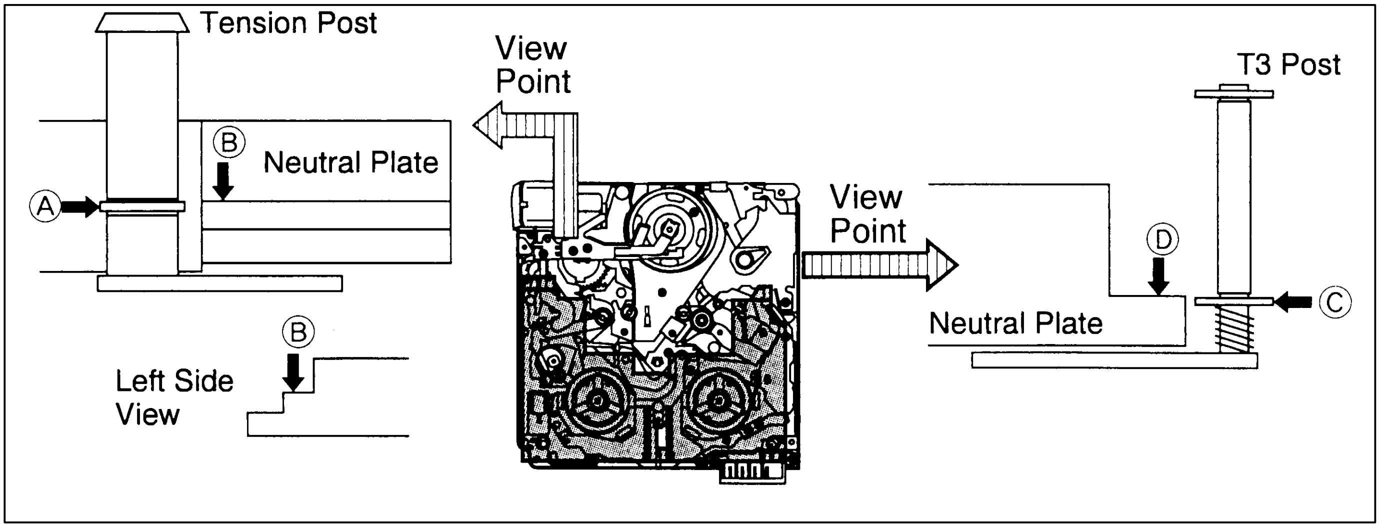

Tension Post
B
Neutral Plate
A
B
Left Side View
View Point
View Point
T3 Post
D
Neutral Plate
C

Figure M43

2-2. Tension Post Position Adjustment

1. Turn the adjustment piece on the Pad Arm Unit fully counterclockwise.
2. Turn the Mode Gear to set the Mechanism position in the play mode, that the Soft Brake of the Pad Arm Unit just touch to the Supply Reel Table as shown in Fig.M44.
3. Set the Mechanism Plate on the Mechanism Chassis as shown in Fig.M44.
4. Turn the adjustment piece on the Pad Arm Unit clockwise slowly until the surface of the Tension Post comes to 2nd step. Set the Mechanism Plate as shown in Fig.A12. in Fig.A9.

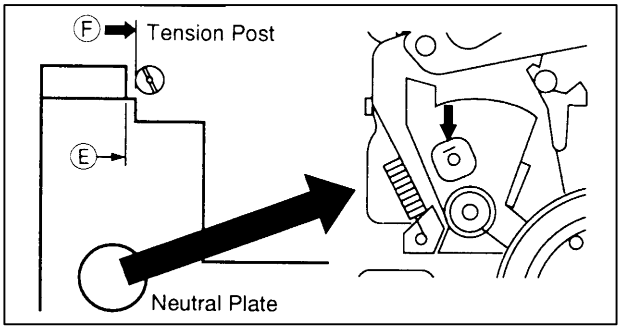


Figure M44

5. After adjustment, turn the Mode Gear to unloading direction then turn back to loading direction, and make sure that position is correct at above specification in Play position.

2-3. Supply & Take-up Reel Table Adjustment

This adjustment should be performed for Supply or Take-up Reel Table one by one.

1. Turn the adjustment screw (A) on top of the Supply or Take-up Reel Table fully clockwise. Then, place the Mechanism Plate on the Mechanism Chassis as shown in Fig.M41.
2. Hold the Mechanism plate by finger and slowly turn the adjustment screw counterclockwise until Reel Table just rotate with adjustment screw as shown in Fig.M45.
3. Remove the Mechanism Plate and hold the Reel Table by finger then turn the adjustment screw counterclockwise to 45 degrees from above step point.

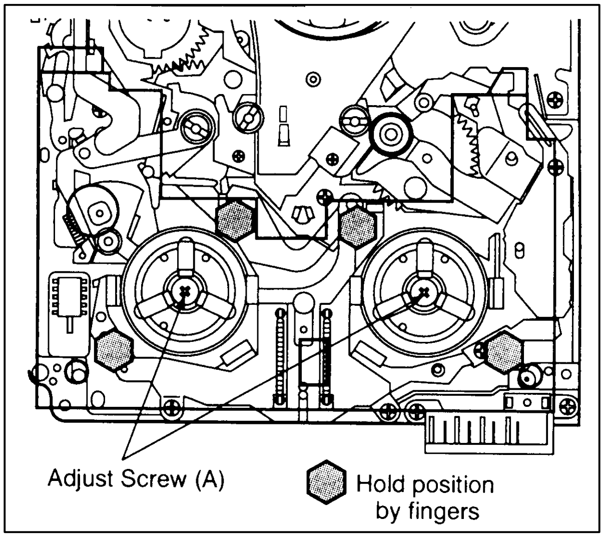


Figure M45

2-4. Confirmation of Tape Pass

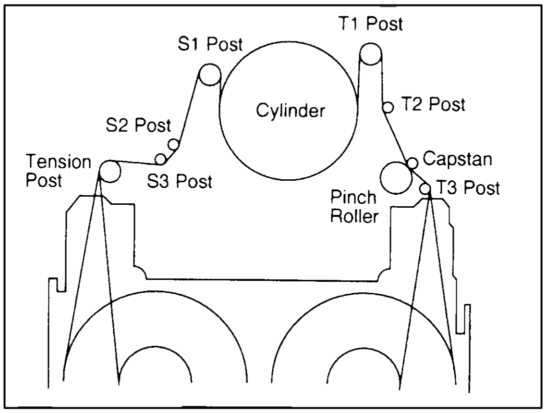


Figure M46

Play back the cassette tape and confirm that the tape pass without curling at the upper and lower guides of the following posts in the Play and REV modes as shown in Fig.M47.

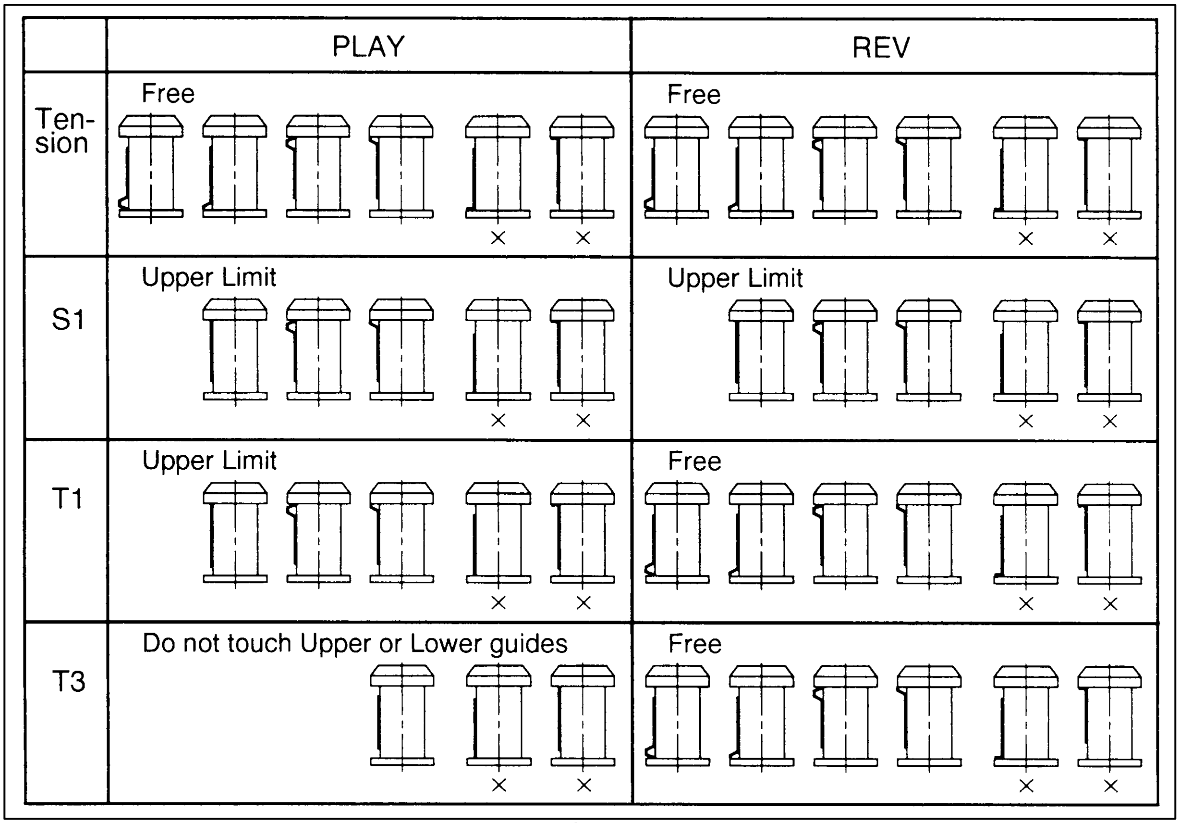

PLAY
REV
Ten-sion
Free
Free
×
×
×
×
S1
Upper Limit
Upper Limit
×
×
×
×
T1
Upper Limit
Free
×
×
×
×
T3
Do not touch Upper or Lower guides
Free
×
×
×
×

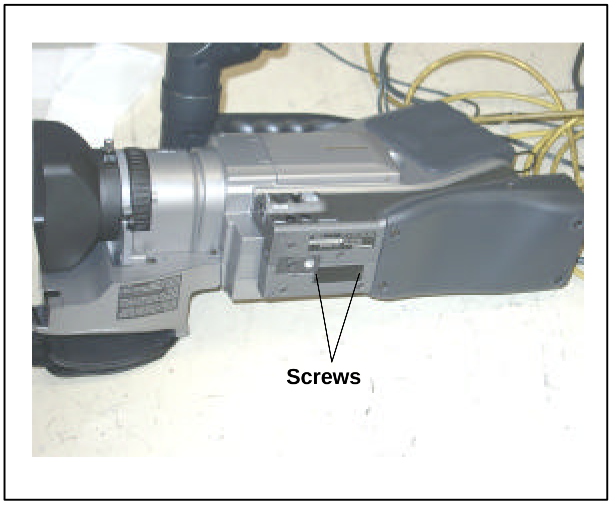
Figure M47

If there is curing or damage at the ether guide of posts, readjust the height of the posts by turning the post with the Post Adjustment Driver.

2-5. Confirmation of the Envelope

To confirm the envelope output, connect the Connection and Measuring Boards as described below.

1. Unscrew 2 screws and remove the EVR cover.



2. Connect the 2 pcs of 30 pin flat cables between P101 / P102 on the Measuring Board, and 2 connectors on the Connector Board. Make sure that the contact surface of 2 pcs of 30 pin Flat Cables are inner side and direction of the Connection Board is as shown in Figure M51. Then connect the Extension board.

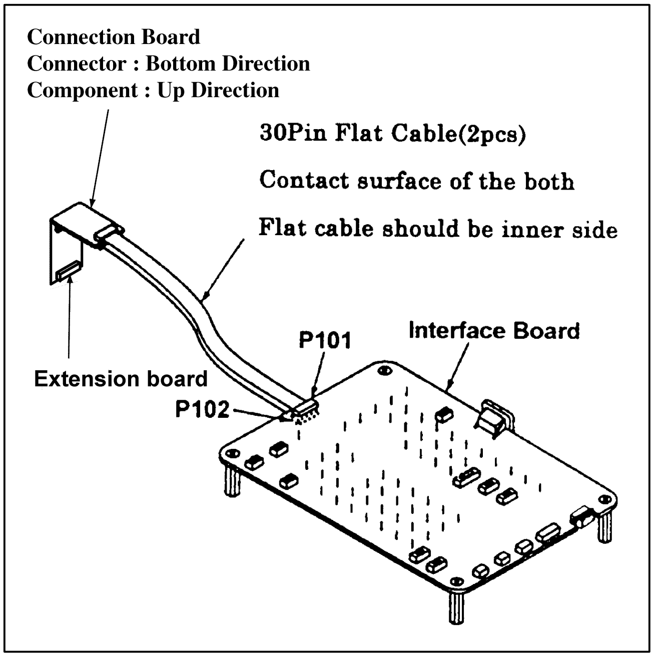

Connection Board
Connector : Bottom Direction
Component : Up Direction
30Pin Flat Cable(2pcs)
Contact surface of the both
Flat cable should be inner side
P101
Interface Board
Extension board
P102

Figure M51

3. Set the Connector Board with the 30 pin Cables to the unit. Make sure that the direction of the Connection Board is correct as shown below.

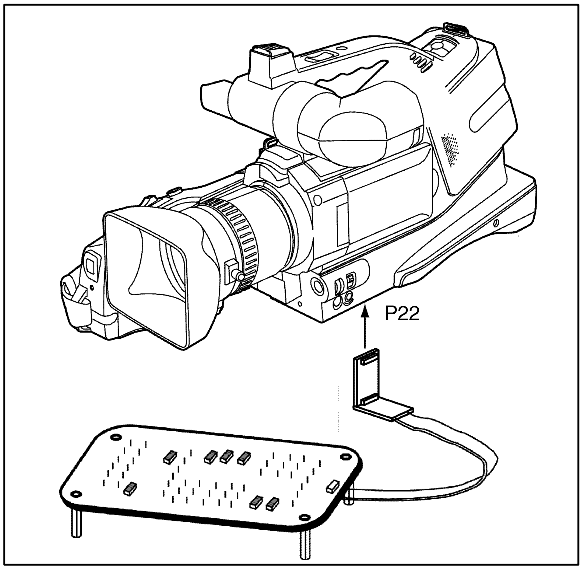


Figure M52

4. Connect the oscilloscope to the Measuring Points [ENVELOPE] and [HID] as a trigger on the Measuring Board.
5. Play back the color bar alignment tape and confirm that the Envelope is within the following specifications.

V1/V max. 0.9
V2/V max. 0.9
V3/V max. 0.9

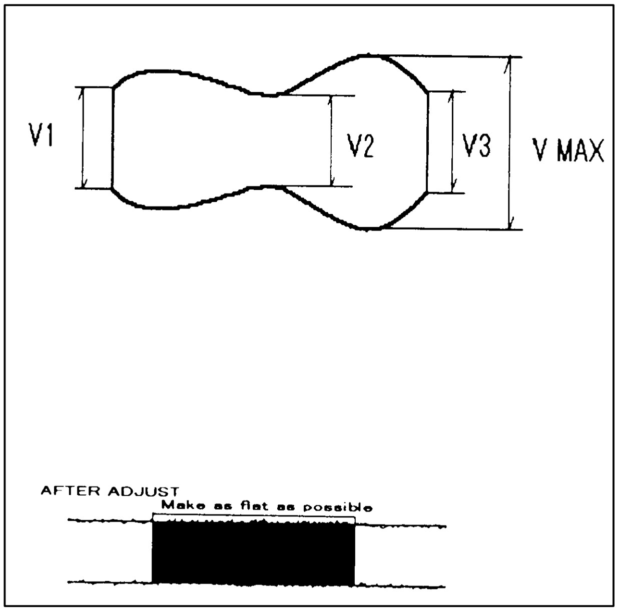

V1
V2
V3
V MAX
AFTER ADJUST
Make as flat as possible

Figure M53

6. If it is out of the specification, adjust the height of the Tension Post and T3 Post.

2-6. LISTA Adjustment Procedures

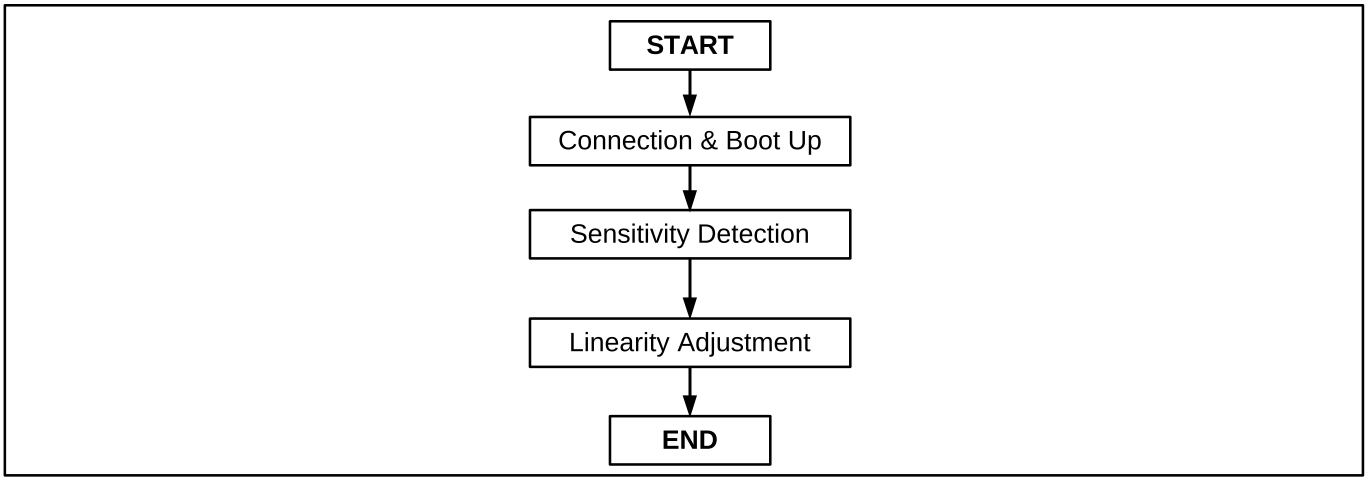

START
Connection & Boot Up
Sensitivity Detection
Linearity Adjustment
END

Figure 1

2-6-1. LISTA Connection and Boot Up

TAPE	VFM3110EDS (DV LISTA)
M. EQ	Personal Computer (A/D Board should be installed.)
TOOL	VFK1481B (LISTA Software), VFK1186 (LISTA Cable), VFK1300 (A/D Converter Board), VFK1308P (Measuring Board), VFK1409S (Measuring Board)
TP	TP F2 : ATF-ERR (VFK1409S), TP HID1 : TRG (VFK1308P), TP GND : GND (VFK1409S)

1. Connect a PC, the Measuring Board and the AG-DVC10 as shown below.

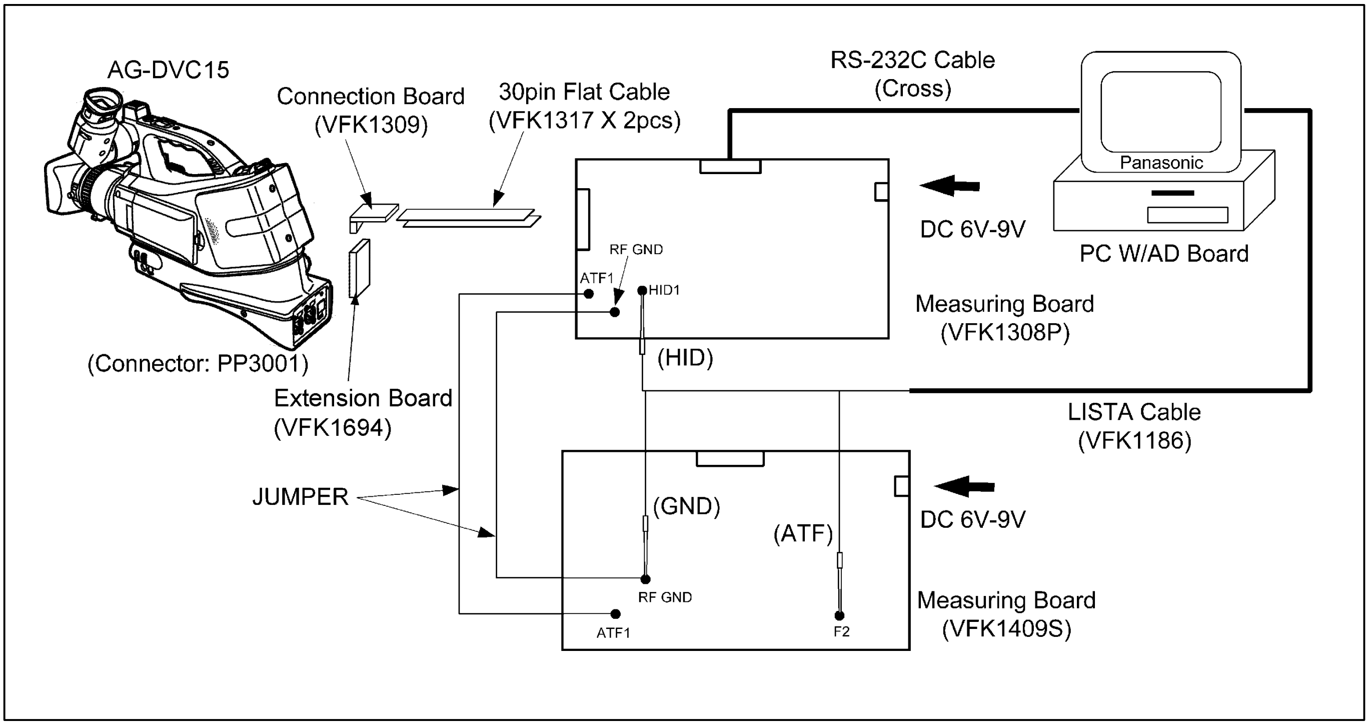

AG-DVC15
Connection Board
(VFK1309)
30pin Flat Cable
(VFK1317 X 2pcs)
RS-232C Cable
(Cross)
Panasonic
DC 6V-9V
PC W/AD Board
RF GND
ATF1
HID1
Measuring Board
(VFK1308P)
(HID)
(Connector: PP3001)
Extension Board
(VFK1694)
LISTA Cable
(VFK1186)
JUMPER
(GND)
(ATF)
DC 6V-9V
RF GND
ATF1
F2
Measuring Board
(VFK1409S)

Figure 2

2. Connect the clips of the LISTA cable to test point on the Measuring Board. (VFK1308P) (VFK1409S) (Refer to Items **“Sensitivity Adjustment”** and **“Linearity Adjustment”**.)

3. Set the switches on the Measuring Board as shown below.

<VFK1308P>

SW REF.	NAME OF SW	SETTING POSITION
SW101	RS-232 Select	It is depend on the type of the cable between the measuring board and PC. *Ordinary 9pin RS-232C Cross Cable: D-SUB Position *M4 RS-232C Cable: M3 Position
SW103	VTR Test	L Position
SW104	BST Test	NORMAL Position
SW106	REC I	OFF Position
SW107		CENTER Position

<VFK1409S>

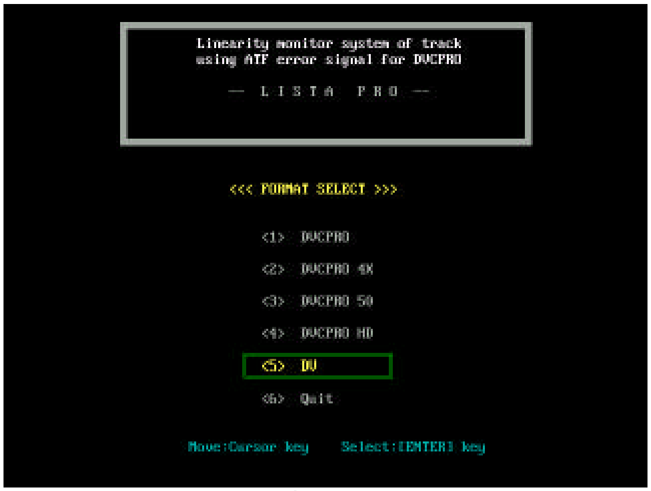
SW REF.	NAME OF SW	SETTING POSITION
-----	LISTA ON - OFF	ON Position

Figure 3

4. Boot up the LISTA software on DOS mode.

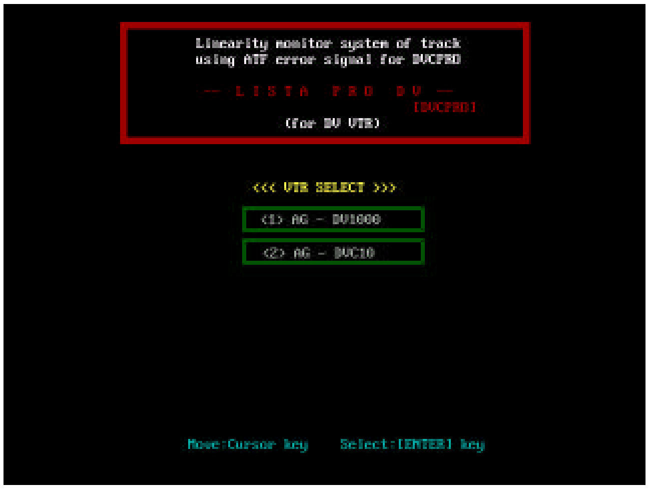
< How to Installation and Boot Up >
All files on the floppy disk (VFK1481B : LISTA Software) copy to created directly on PC (**i.e.;** C:¥LISTA).
Type **"LISTA"** and press **ENTER** key, then boot up the LISTA software VFK1481B.

5. After boot up the LISTA software, **<<< FORMAT SELECT >>>** display appeared. Select the item **"DV"**.
6. After select the format, **<<< VTR SELECT >>>** display appeared, and select the model **"AG-DV1000 or DVC10"**.



```
Linearity monitor system of track
using ATF error signal for DVCPRO

— L I S T A   P R O —

<<< FORMAT SELECT >>>

<1>  DVCPRO
<2>  DVCPRO 4X
<3>  DVCPRO 50
<4>  DVCPRO HD
<5>  DV
<6>  Quit

Move:Cursor key    Select:[ENTER] key
```

Figure 4



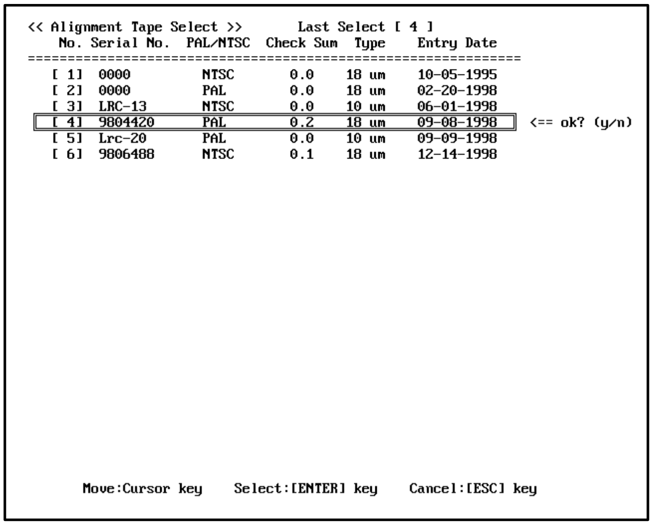
```
Linearity monitor system of track
using ATF error signal for DVCPRO

— L I S T A   P R O   D V —
                      [DVCPRO]
       (for DV VTR)

<<< VTR SELECT >>>
<1> AG - DV1000
<2> AG - DVC10

Move:Cursor key    Select:[ENTER] key
```

Figure 5

7. Next, select the Serial number of the Alignment tape on the screen. In case of LISTA software have not resisted data of alignment tape, press the ESC key, then main menu is display on the screen. And select the item **"<4> Alignment Tape"** for entry the data on the attachment sheet, which is enclosed of alignment tape.

8. In case of LISTA software have resisted data of alignment tape, select the serial number of Alignment tape, then appear message **“ok?(y/n)”** on the screen. And press **“ Y ”** or **“ ENTER ”** key, then LISTA main menu is display on screen.

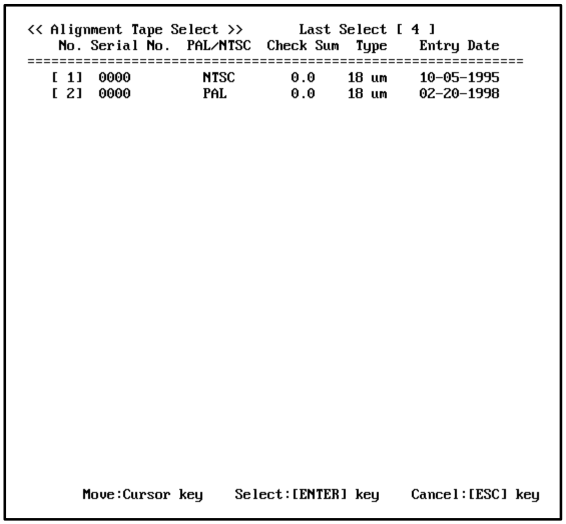
< In case of Alignment Tape resisted already >



```
<< Alignment Tape Select >>       Last Select [ 4 ]
    No. Serial No.  PAL/NTSC  Check Sum  Type    Entry Date
==================================================================
   [ 1]  0000         NTSC       0.0     18 um    10-05-1995
   [ 2]  0000         PAL        0.0     18 um    02-20-1998
   [ 3]  LRC-13       NTSC       0.0     10 um    06-01-1998
   [ 4]  9804420      PAL        0.2     18 um    09-08-1998   <== ok? (y/n)
   [ 5]  Lrc-20       PAL        0.0     10 um    09-09-1998
   [ 6]  9806488      NTSC       0.1     18 um    12-14-1998

         Move:Cursor key    Select:[ENTER] key    Cancel:[ESC] key
```

Figure 6

< In case of Alignment Tape does not resisted >



```
<< Alignment Tape Select >>       Last Select [ 4 ]
    No. Serial No.  PAL/NTSC  Check Sum  Type    Entry Date
==================================================================
   [ 1]  0000         NTSC       0.0     18 um    10-05-1995
   [ 2]  0000         PAL        0.0     18 um    02-20-1998

         Move:Cursor key    Select:[ENTER] key    Cancel:[ESC] key
```

Figure 7

2-6-2. How to Entry the Alignment Tape Data

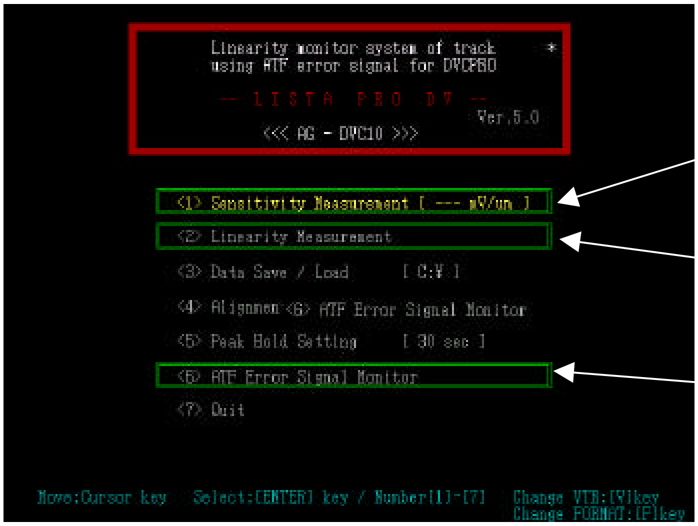
1. Select the item **”<4> Alignment Tape”** on the LISTA main menu.
2. Select the item **”<2> ENTRY”** on the alignment menu.
3. After display the screen of **<<Alignment Tape Data Entry>>**, first input the Serial Number follow the printed number on the tape label. And input the number **“0”** or **“1”** for selected the PAL/NTSC. And after that for entry the tape type, incase of DVCPRO input to **“0”**, in case of DV input to **“1”**.
4. After select the tape type, the frame for input the DATA and CHECK SUM appeared on the screen. Input the numerical value in numerical order on the data sheet, which are enclosed with alignment tape. If input the wrong number, appear the error message on the screen, then confirm that the data on the sheet.
5. After entry the data, select **“<1> SELECT”** on the Alignment Tape Menu and select the serial number of the alignment tape.

<< Alignment Tape Data Entry >>   Serial No. 0596003 (NTSC)   10ｍm

[1]	- 0.1	**[11]**	0.7	**[21]**	- 0.4	**[31]**	- 0.4
[2]	0.1	**[12]**	1.0	**[22]**	- 0.2	**[32]**	- 0.6
[3]	0.0	**[13]**	0.7	**[23]**	- 0.7	**[33]**	- 0.3
[4]	0.2	**[14]**	0.5	**[24]**	- 0.6	**[34]**	- 0.2
[5]	0.6	**[15]**	0.2	**[25]**	- 0.7	**[35]**	- 0.1
[6]	0.5	**[16]**	- 0.5	**[26]**	- 0.3	**[36]**	- 0.3
[7]	0.7	**[17]**	- 0.3	**[27]**	- 0.4	**[37]**	- 0.1
[8]	0.9	**[18]**	- 0.3	**[28]**	- 0.4		
[9]	1.0	**[19]**	- 0.1	**[29]**	- 0.6	**[CS]**	- 0.6
[10]	0.8	**[20]**	- 0.6	**[30]**	- 0.3		

2-6-3. LISTA Sensitivity Detection

TP	TP F2 : ATF ERR (VFK1409S), TP HID1 : TRG (VFK1308P), TP GND : GND (VFK1409S)
VTR MODE	PLAY
ADJ. MODE	Tape Speed 101.2% Mode (AUTO)
TAPE	VFM3000EDS (DV LISTA)
SPEC.	70 mV / µm to 300 mV / µm



```
Linearity monitor system of track          *
using ATF error signal for DVCPRO

    -- L I S T A   P R O   D V --
                                     Ver.5.0
        <<< AG - DVC10 >>>

<1> Sensitivity Measurement [ --- mV/um ]
<2> Linearity Measurement
<3> Data Save / Load        [ C:¥ ]
<4> Alignmen<6> ATF Error Signal Monitor
<5> Peak Hold Setting       [ 30 sec ]
<6> ATF Error Signal Monitor
<7> Quit

Move:Cursor key   Select:[ENTER] key / Number[1]-[7]   Change VTR:[V]key
                                                       Change FORMAT:[F]key
```

Select at Sensitivity Detection.

Select at Linearity Adjustment.

Select at Sensitivity Adjustment.

Figure 8

1. Insert the DV Alignment Tape (VFM3000EDS) to the Machine.
2. Select item **"<1> Sensitivity Measurement "** and press **"ENTER"**.
3. Then the tape is played back (tape speed : 101.2%) automatically.
4. Confirm the sensitivity value of the screen is with in specification.

<<Sensitivity Measurement Finish>>

Sensitivity	**142.95 (mV/um)**
Sens.1	138.43 (mV/um)
Sens.1	147.48 (mV/um)

Confirm that the value of Sens.Value1 and Sens.Value2 in specification

Figure 9

2-6-4. LISTA Linearity Adjustment

TP	TP F2 : ATF ERR (VFK1409S), TP HID1 : TRG (VFK1308P), TP GND : GND (VFK1409S)
ADJ.	S1 and T1 Post Height
VTR MODE	PLAY
ADJ. MODE	Linearity Adjustment Mode (AUTO)
TAPE	VFM3000EDS (DV LISTA)
TOOL	VFK1149A : Post Driver
SPEC.	Linearity : less than 3µm

1. Insert the DV Alignment Tape (VFM3000EDS) to the Machine.
2. Select the item **“<2> Linearity Measurement”** on the LISTA Main Menu, then appeared Linearity Waveform.
3. When the waveform as shown below figure is displayed on the screen, press the **”BS (Back Space)”** key for display the waveform positioned at the center of the scale on screen. Adjust S1 and T1 post height by using the post driver so that the linearity waveform is become flat as possible, and it should be within specification.

(Adjust linearity waveform in the red dot line on the screen.)

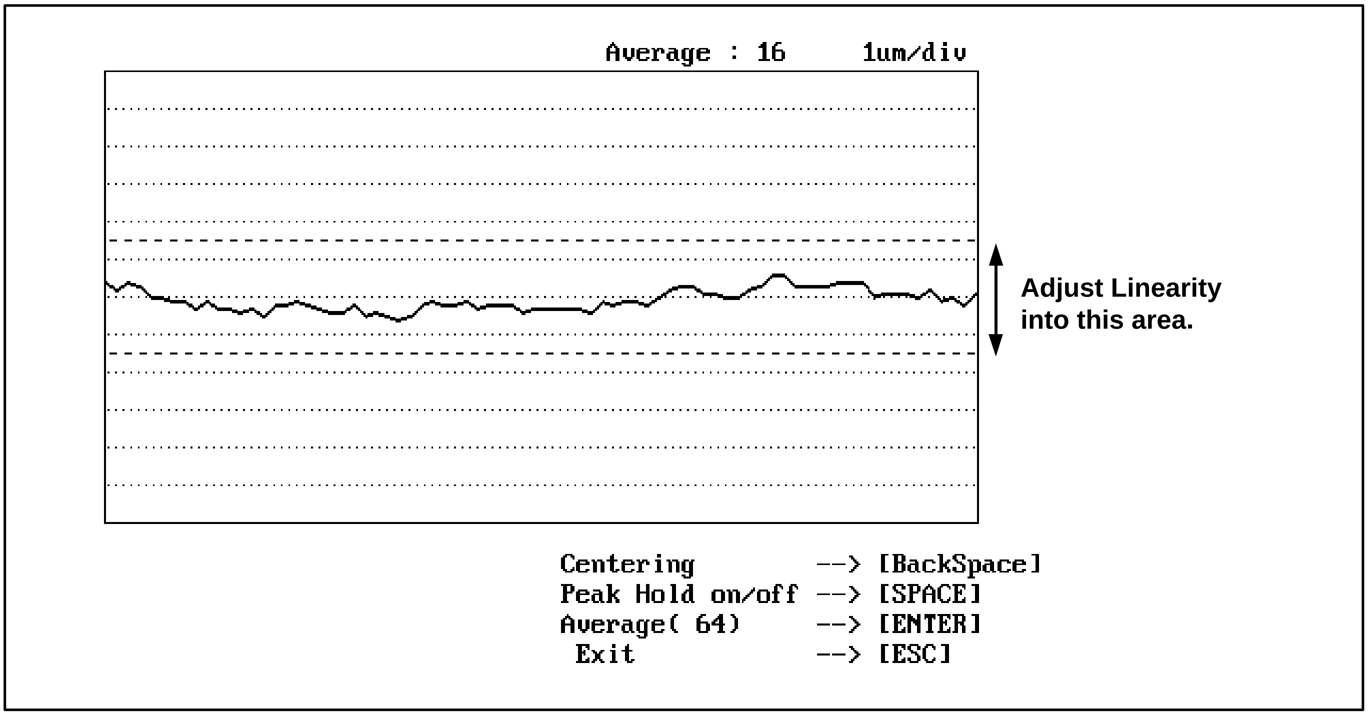

Average : 16
1um/div
Adjust Linearity into this area.
Centering --> [BackSpace]
Peak Hold on/off --> [SPACE]
Average(64) --> [ENTER]
Exit --> [ESC]

Figure 10

POINT :
The part of left side of waveform (entrance side) is adjusted by height of S1 post and part of right side of waveform (exit side) is adjusted by height of T1 post.
Lower part of above waveform of figure is displayed lead of Cylinder.
When the post driver is remove from upper part of post, linearity waveform is changed.
After finish this adjustment, eject the tape and insert the tape again for confirm the shape of linearity waveform does not changed.

SECTION 3

DISASSEMBLY PROCEDURES

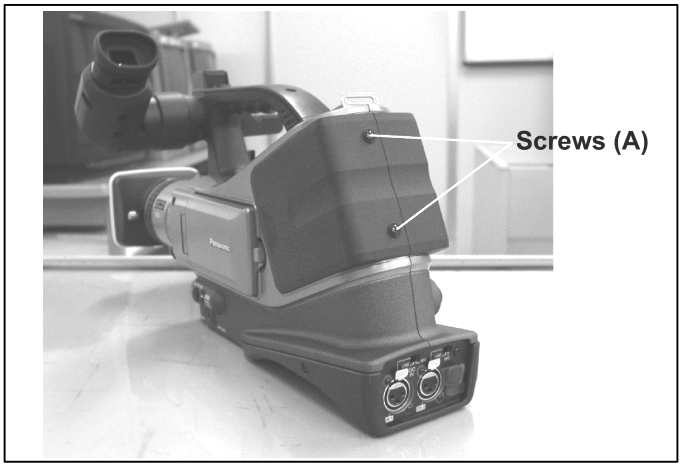
CONTENTS

1. Removal of the Ear Pad DIS-1
2. Removal of the Shoulder Pad DIS-1
3. Removal of the Left Side Cover DIS-1
4. Removal of the Lens Hood DIS-1
5. Removal of the Grip Cover Unit DIS-2
6. Removal of the Operation C.B.A. DIS-2
7. Removal of the ND Filter Unit DIS-2
8. Removal of the Focus Ring DIS-3
9. Removal of the Front Unit DIS-3
10. Removal of the Front Case DIS-3
11. Removal of the Mother C.B.A. DIS-3
12. Removal of the VTR Main C.B.A. DIS-4
13. Removal of the Mechanical Unit DIS-4
14. Removal of the EVF DIS-4
15. Removal of the LCD Unit DIS-5

DISASSEMBLY PROCEDURE

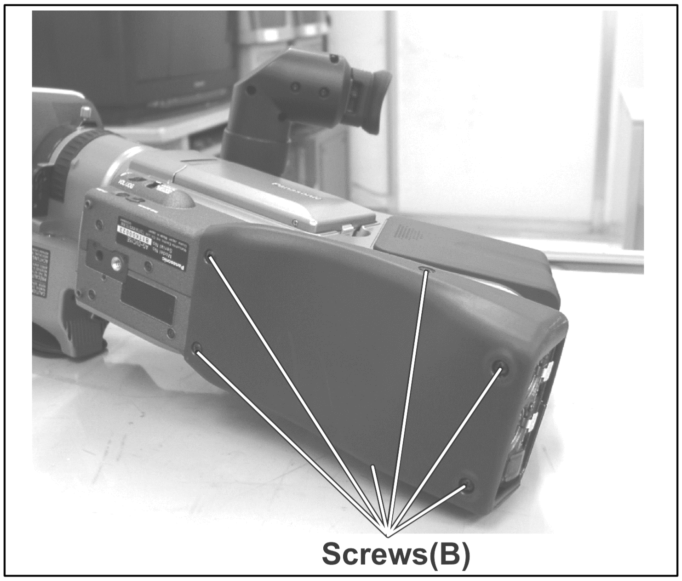
1. Removal of the Face Panel

1. Unscrew the 2 screws (A) and remove the Face Panel.

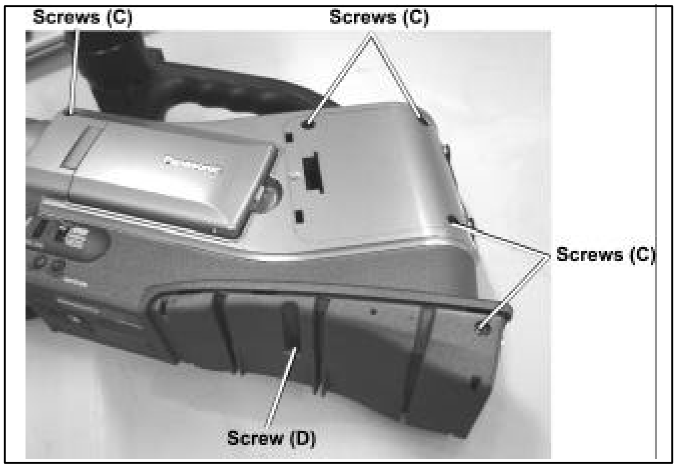


2. Removal of the Shoulder Pad

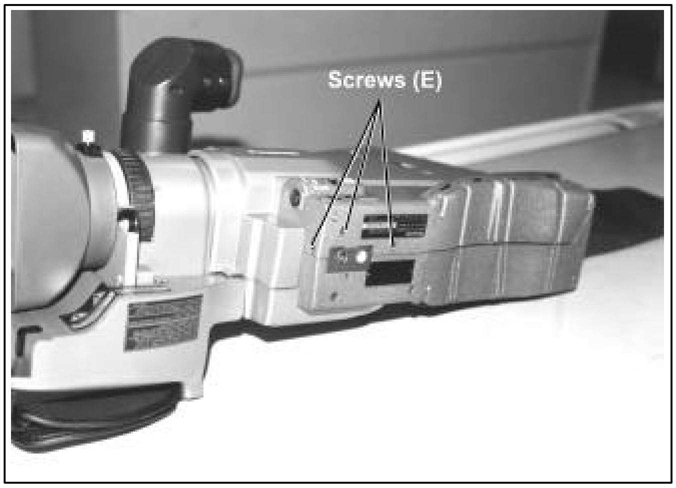
1. Unscrew the 6 screws (B) and remove the Shoulder Pad



3. Removal of the Right Side Cover


Screws (C)
Screws (C)
Screws (C)
Screw (D)

1. Unscrew the 5 screws (C).
2. Unscrew a screw (D).



3. Unscrew the 3 screws (E) and open the Right Side Cover carefully.

Note : Be careful not to damage the wires.

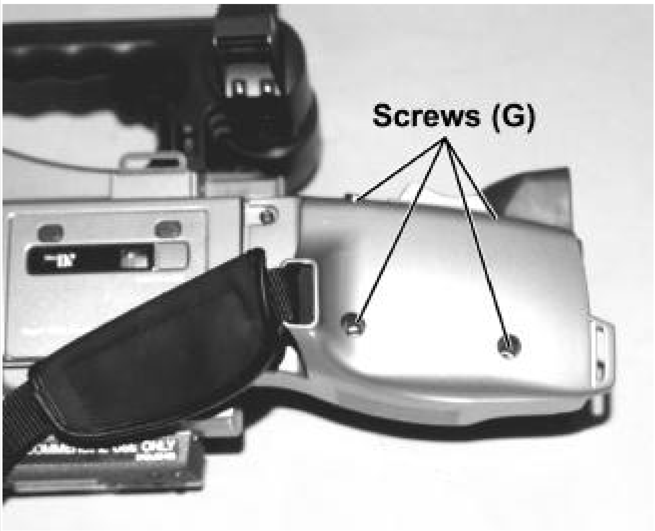
4. Disconnect the connector (P2001, P2005), and remove the Left Side Cover.

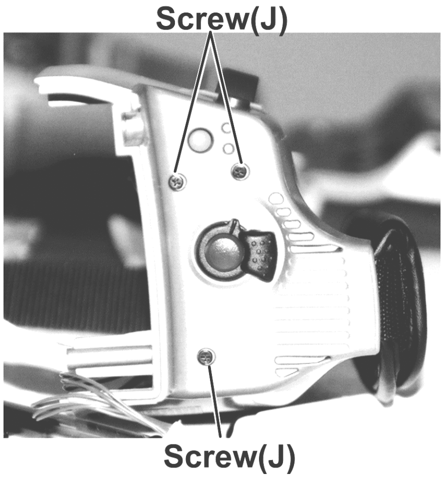
4. Removal of the Hood Cap

1. Unscrew the screws and remove Hood Cap.

5. Removal of the Grip Cover Unit

1. Unlock the Grip Belt, unscrew 4 screws (G) and open Grip Cover Unit.
2. Remove the Shield Plate and disconnect the connector (P1005, P1007, P1023) then remove Grip Cover Unit.



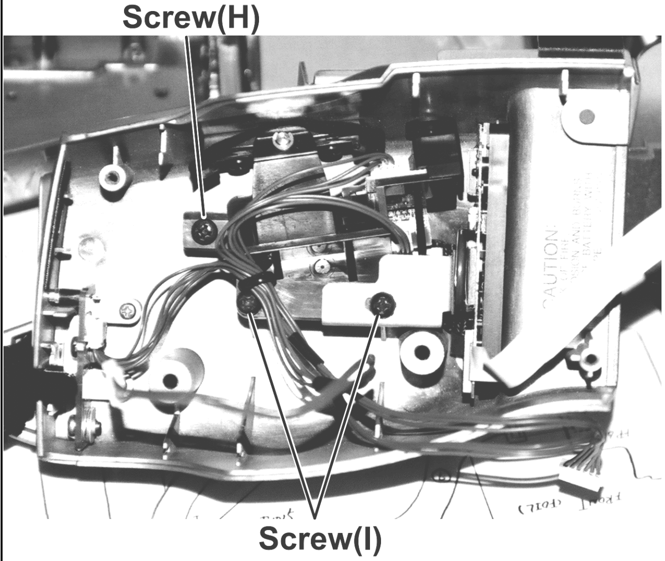


2. Unscrew 3 screw (J) and remove the Operation C.B.A.

Caution : Refer to service information for the backup battery replacement procedure.

6. Removal of the Operation C.B.A.

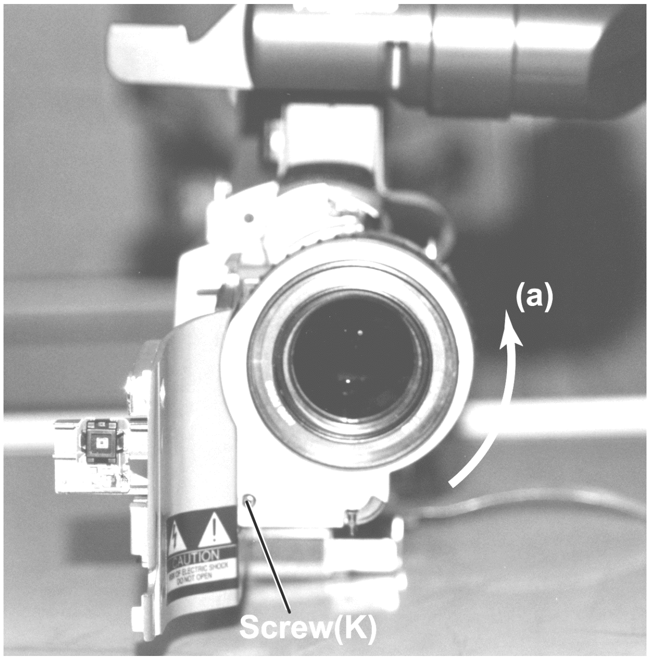
(For the battery replacemant)



1. Unscrew a screw (H) and 2 screws (I).

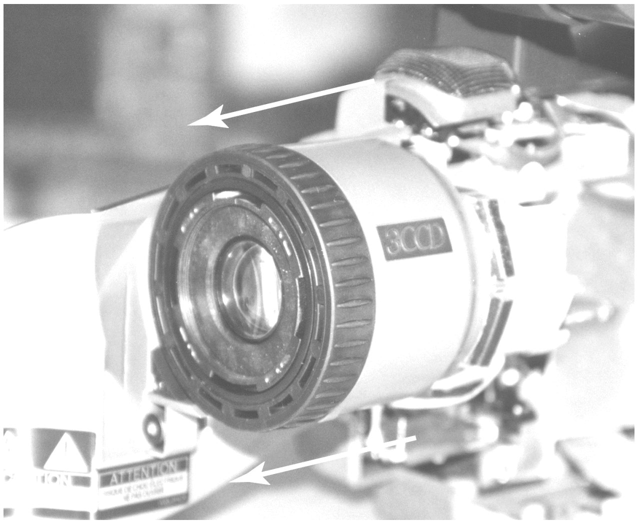
7. Removal of the ND Filter Unit

1. Unscrew a screw (K) and turned (a) counterclockwise then remove the ND Filter Unit.



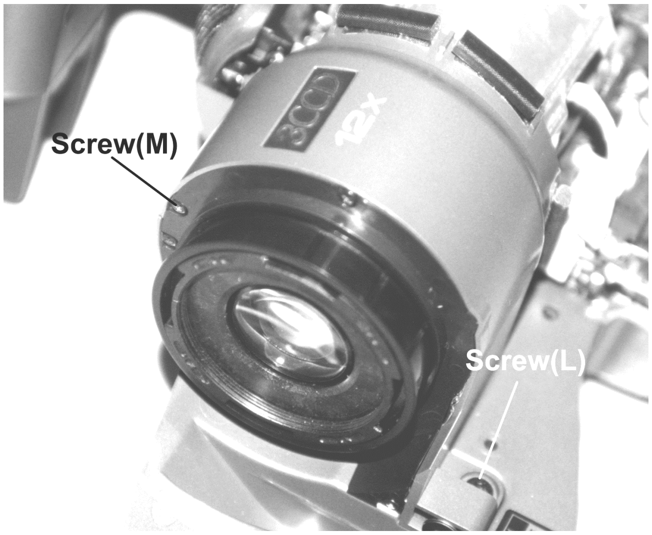
8. Removal of the Focus Ring

1. Pull out the Focus Ring as arrow shows.



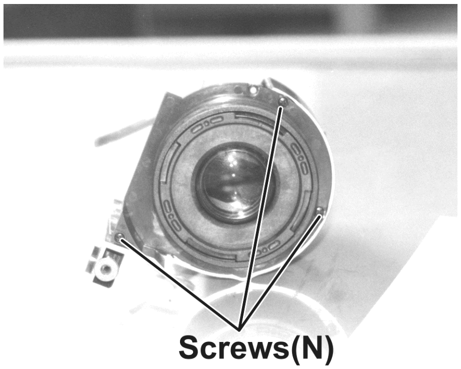
9. Removal of the Front Unit

1. Unscrew a screw (L) and a screw (M).
2. Disconnect the connector (P2501) on the AWT C.B.A.
3. Disconnect the connector (P1016) on the Mother C.B.A. and pull out the Front Unit.


Screw(M)
Screw(L)

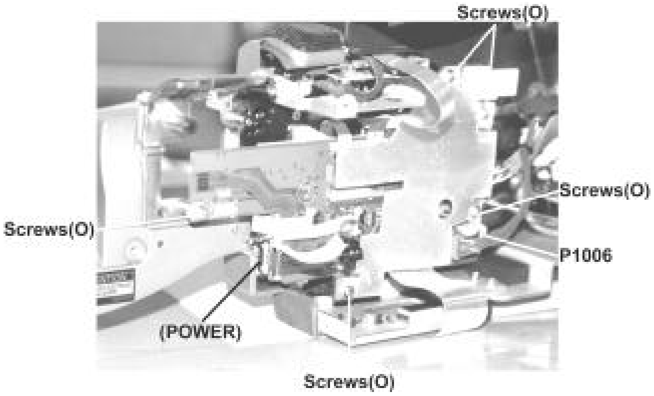
10.Removal of the Lens Case

1. Unscrew the 3 screws (N) and remove the Lens Case.



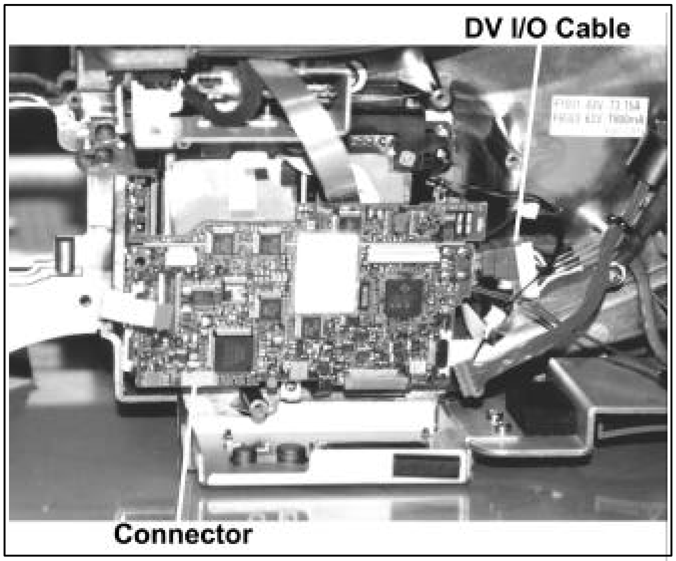
11.Removal of the Mother C.B.A.

1. Unscrew the 5 screws (O) and remove Shield Cover.
2. Disconnect the 8 connectors (P1004, P1006, P1008, P1009, P1014, P1015, P1021 and Connector of Mother C.B.A).
3. Lift up and remove Mother C.B.A from the VTR Main C.B.A.

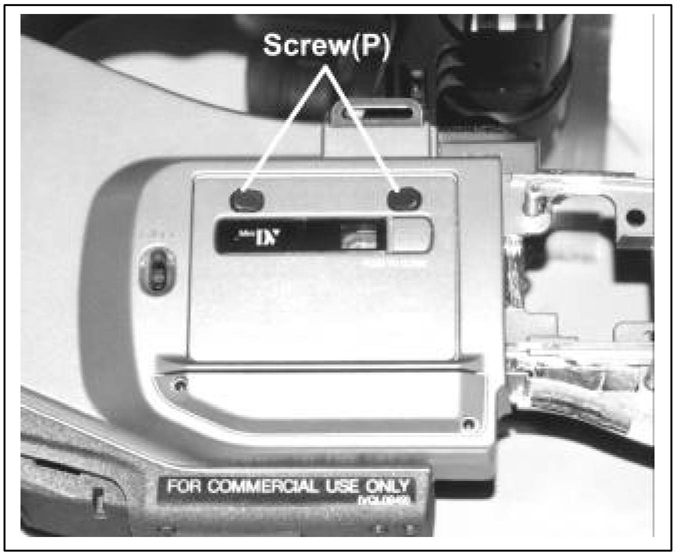

Screws(O)
Screws(O)
Screws(O)
P1006
(POWER)
Screws(O)

12.Removal of the VTR Main C.B.A.

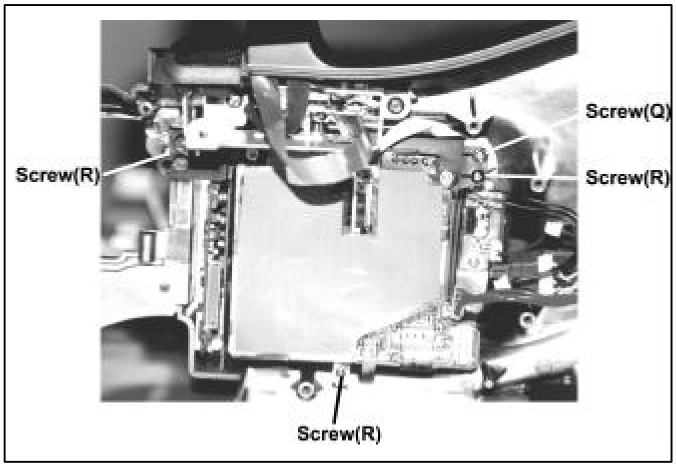
1. Disconnect the DV I/O Cable and lift up the VTR Main C.B.A vertically.
2. Disconnect the connector and remove the VTR Main C.B.A.


DV I/O Cable
Connector

13.Removal of the Mechanical Unit

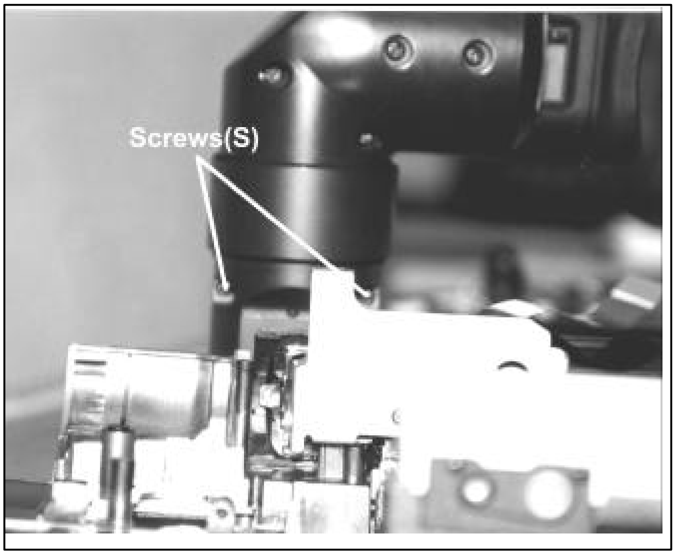

Screw(P)
FOR COMMERCIAL USE ONLY

1. Take off the Blind Cover and unscrew the 2 screws (P), then remove the Cassette Cover.
2. Unscrew a screw (Q), and 3 screws (R) and then remove the Mechanical Unit.

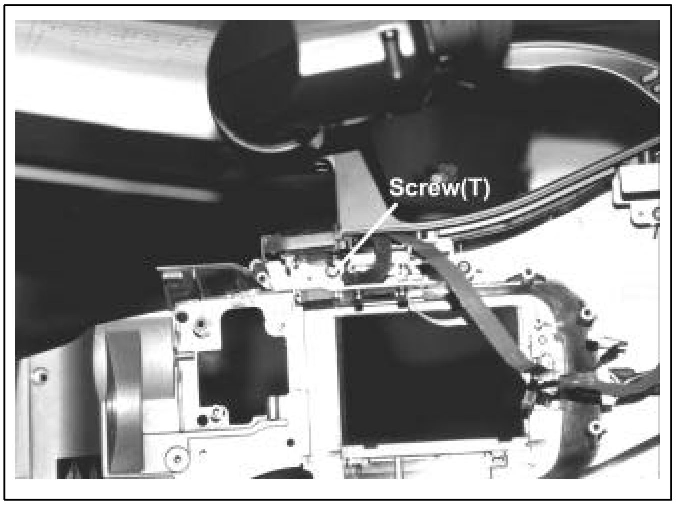

Screw(Q)
Screw(R)
Screw(R)
Screw(R)

14.Removal of the EVF

1. Unscrew the 2 screws (S).

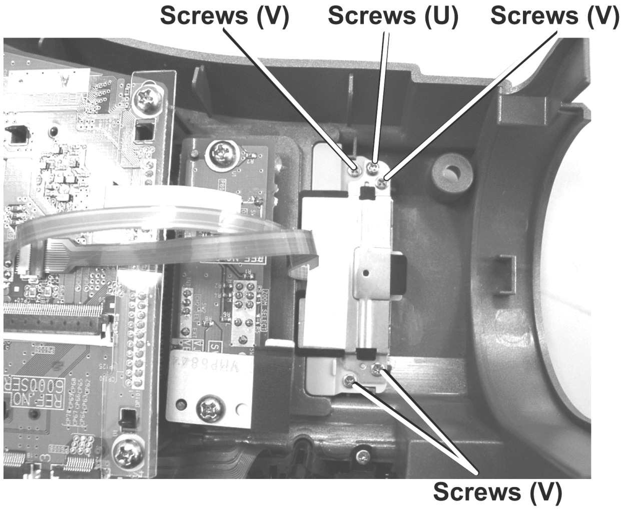


2. Unscrew the screw (T) and remove the EVF.



15.Removal of the LCD Unit

1. Unscrew a screw (U) and 4 screws (V) and then remove the LCD Unit.


Screws (V)
Screws (U)
Screws (V)
Screws (V)

Note : Assemble procedures are reverse of the disassembly procedures.

SECTION 2

SERVICE INFORMATION

CONTENTS

1. Extender Cables INF-1
2. Connection of Extender Cables INF-2
3. Service Mode INF-4
4. Servicing Fixtures and Tools INF-5
   4-1. Video and Camera Adjustment Tools INF-5
   4-2. Mechanical Adjustment Tools INF-6
   4-3. Extender Cables INF-6
   4-4. Summary Table of Servicing Fixtures and Tools INF-7
5. Lithium Battery INF-8
   5-1. Replacement Procedure INF-8

SERVICE INFORMATION

1. EXTENDER CABLES

Use the extender cable as shown in the table below for checking and servicing the unit.

Part No.	Extender Cable	Quantity	Connection Between	No.
VFK1389	26Pin Extender Cable	1	Lens Unit/Camera Sub PP101	1
VFK1311	80Pin Extender Cable	1	Camera Main PP301/Mother P1012	2-1
VFK1311	80Pin Extender Cable	1	Power PP1001/VTR Main PS1001	2-2
VFK1311	80Pin Extender Cable	1	VTR Main PS3002/Mother P1013	2-3
VFK1387	30Pin Extender Cable	1	Camera Main PP302/Mother P1010	3-1
VFK1387	30Pin Extender Cable	1	VTR Main PS3001/Mother P1011	3-2
VFK1388	12Pin Extender Cable	1	Camera Main FP305/Mother P1001	4
VFK1367	50Pin Extender Cable	1	VTR Main FP2001/Drive PP2001	5
VFK1176	13Pin Extender Cable	1	Front FP4801/Mother P1015	6-1
VFK1176	13Pin Extender Cable	1	VTR Main FP4001/Mother P1014	6-2
VFK1286	16Pin Extender Cable	1	Operation FF6701/Mother P1005	7-1
VFK1286	16Pin Extender Cable	1	VTR Main FP6002/Mother P1006	7-2
VFK1286	16Pin Extender Cable	1	Power Sub P1702/Mother P1502	7-3
VFK1286	16Pin Extender Cable	1	Jack P4802/Mother P1505	7-4
VFK1173	14Pin Extender Cable	1	Power FP1001/Mother	8-1
VFK1173	14Pin Extender Cable	1	VTR Main FP6001/Mother P1004	8-2
VFK1282	22Pin Extender Cable	1	Lens Unit/Camera Main FP701	9
VFK1284	24Pin Extender Cable	1	HR Amp/VTR Main FP3201	10
VFK1365	70Pin Extender Cable	1	VTR Main PP3002/Mother P1018	11
VFK0913	18Pin Extender Cable	1	EVF INT P9001/Mother P1021	13

The numbers (No.) shown in the above table are related with the cable reference number in figure S2 and S3.

Fig.S1

2. CONNECTION OF EXTENDER CABLES

1. To be careful for unplugging or plugging connectors.
2. Use a grounded ESD wrist strap while disassembling the camera portion.

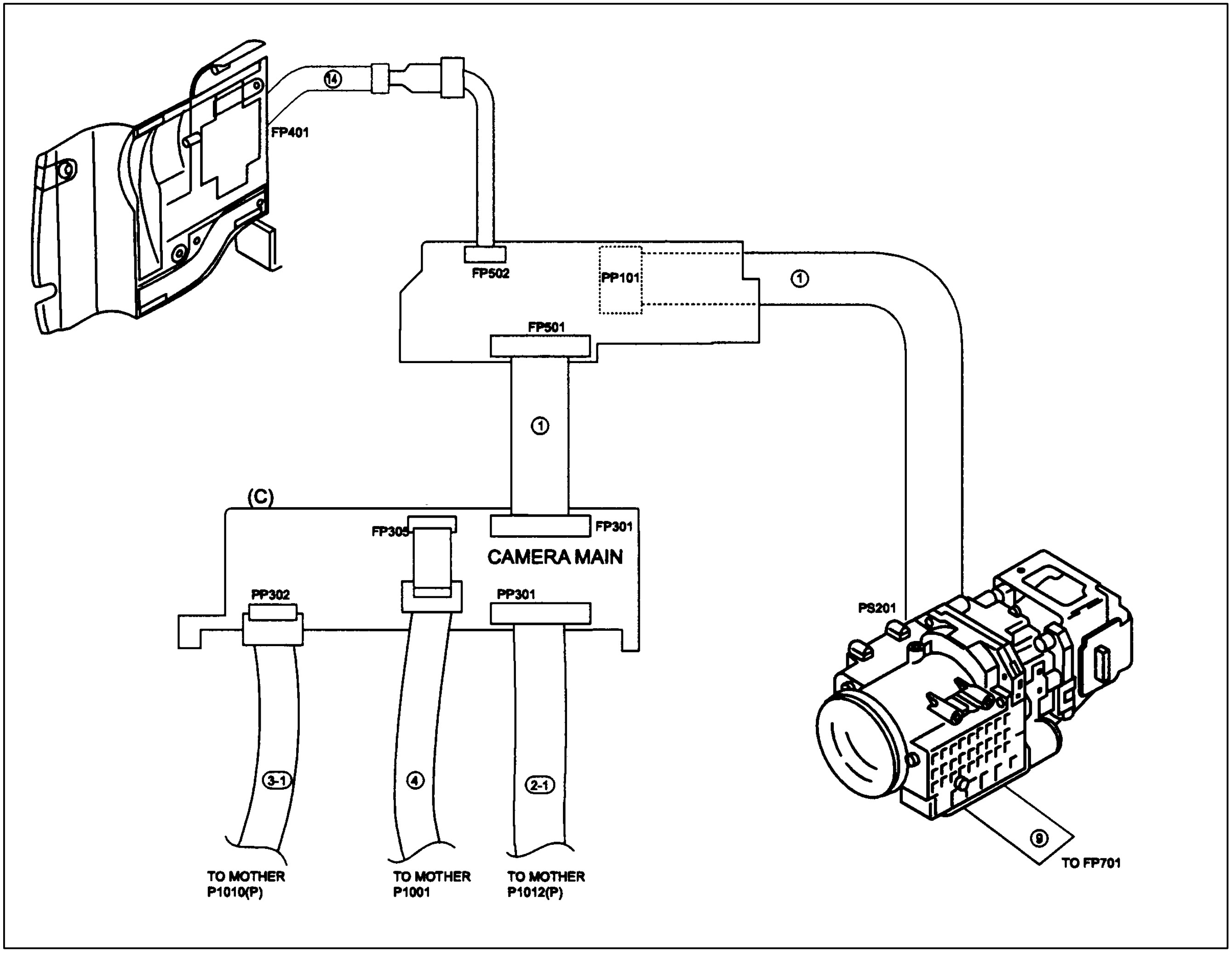

⑭
FP401
FP502
PP101
①
FP501
①
(C)
FP305
FP301
CAMERA MAIN
PP302
PP301
PS201
③-1
④
②-1
⑨
TO FP701
TO MOTHER P1010(P)
TO MOTHER P1001
TO MOTHER P1012(P)

Fig.S2

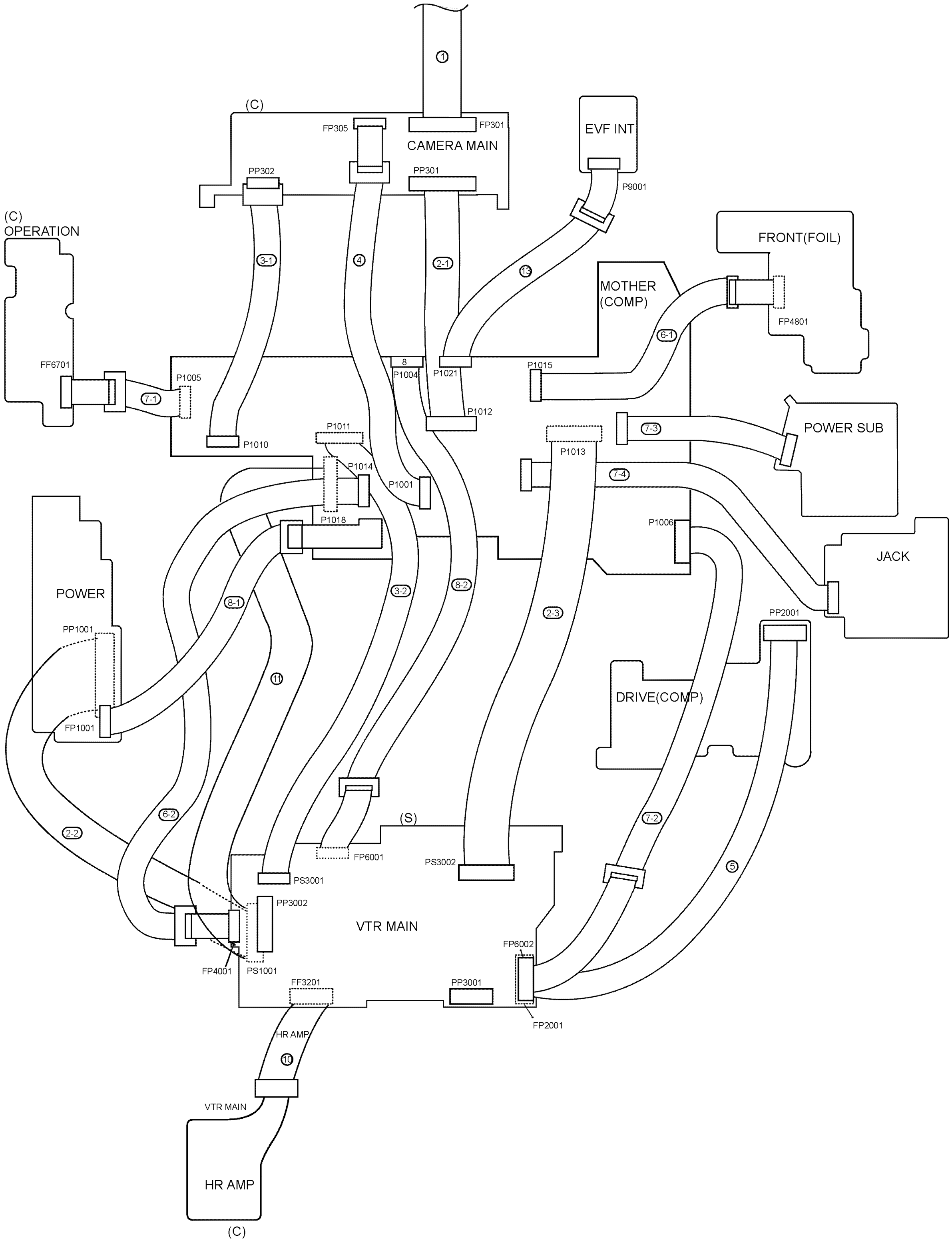
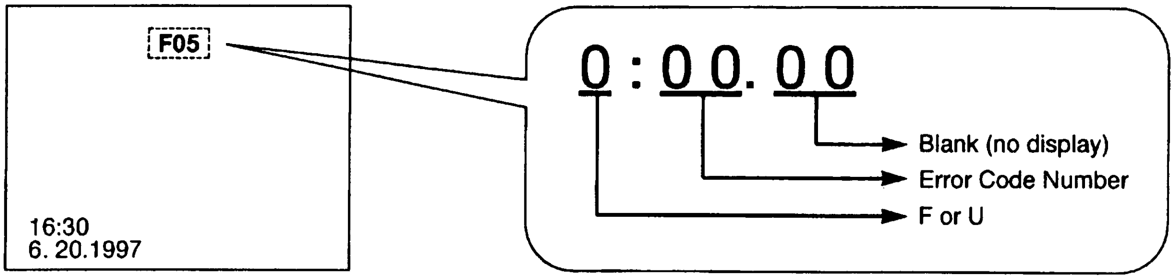

①
(C)
FP305
FP301
CAMERA MAIN
EVF INT
PP302
PP301
P9001
(C)
OPERATION
3-1
④
2-1
⑬
FRONT(FOIL)
MOTHER
(COMP)
6-1
FP4801
FF6701
P1005
7-1
8
P1004
P1021
P1015
P1012
P1010
P1011
P1014
P1001
P1013
7-3
POWER SUB
7-4
P1018
POWER
P1006
JACK
8-1
3-2
8-2
2-3
PP2001
PP1001
⑪
DRIVE(COMP)
FP1001
6-2
7-2
2-2
(S)
⑤
FP6001
PS3002
PS3001
PP3002
VTR MAIN
FP6002
FP4001
PS1001
FF3201
PP3001
FP2001
HR AMP
⑩
VTR MAIN
HR AMP
(C)

Fig.S3

3. SERVICE MODE

When some problem occurred, the error code is displayed on the EVF.

At the same time the camera LED is flashed according to the error code table as shown below.



E.V.F.

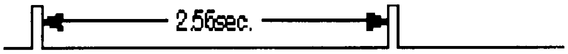
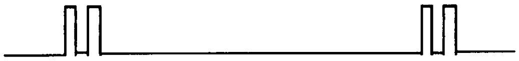
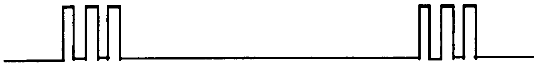
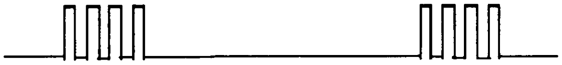
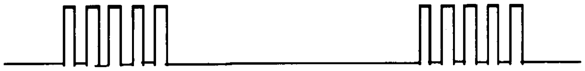
Error Code	Cause	Timing of LED Flashing and Power Supply OFF Timing
F01	Tale-Up Reel Rock	After one minute of flashing, the power supply will be stopped. 
F02	Supply Reel Rock	After one minute of flashing, the power supply will be stopped. 
F03	Unloading Lock	After one minute of flashing, the power supply will be stopped. 
F04	Loading Lock	After one minute of flashing, the power supply will be stopped. 
F05	Cylinder Lock	After one minute of flashing, the power supply will be stopped. 
F31	Data Transmission Error	---
F51	Focus Motor Lock	The camera LED flashes at 1 Hz.
F52	Zoom Motor Lock	The camera LED flashes at 1 Hz.
U10	Dew Detection	After 18 second of flashing at 1 Hz, the power supply will be stopped.
U11	Head Clogging	---

Fig.S4

Note: Error Code (F01 thorough F05 and U10) will be displayed again with power switch OFF and ON while the battery remains (Once the battery is removed or discharged, the error code is vanished.)

4. SERVICING FIXTURES AND TOOLS

The following servicing tools is required for mechanical, electrical adjustments and servicing.

4-1. Video and Camera Adjustment Tools

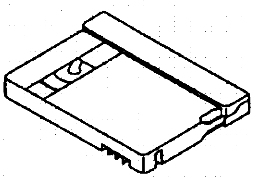
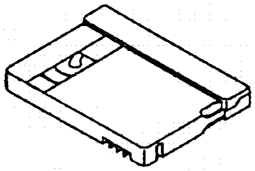
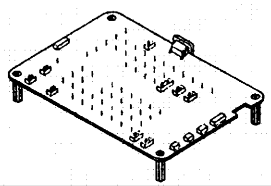
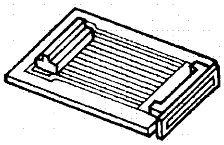
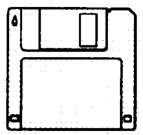
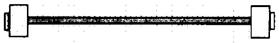
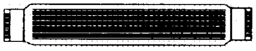
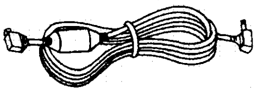
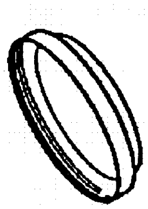
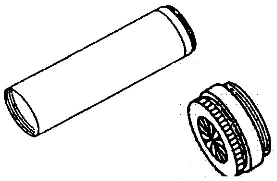
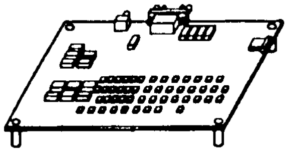
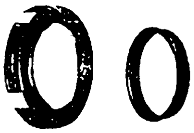
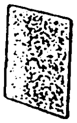
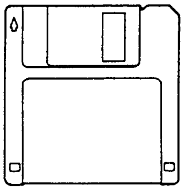
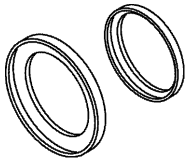
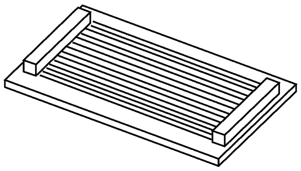
VFM3110EDS Alignment Tape (Color Bar) 	**VFK1217** Tape End/Beg.Sensor. Cassette 	**VFK1308P** Measuring Board 	**VFK1309** EVR Connector Board 
VFK1694 EVR Adjustment Software 	**--------------------** Ordinary 9pin RS-232C Cross Cable 	**VFK1317** 30pin Flat Cable  (Adjustment system needs 2pcs. of this cable)	**VJA0941** DC Cable 
VFK1164TAR43 43mm Attachment Ring 	**VFK1164TCM01** Collimator Set (with Focus Chart) 	**VFK1409S** Measuring Board 	**VFK1345** CC Filter Holder **VFK1346** CC Filter Holder Step Down Ring 
VFK1341 (LB40) **VFK1343** (LA40) **VFK1347** (LB120) **VFK1695** (LBA4) **VFK1696** (LBA8) **VFK1697** (LBB4) CC Filter 	**VFK1481B** LISTA SOFTWARE 	**VFK1659** Step-up Ring (43mm→49mm) **VFK1660** Step-up Ring (49mm→62mm) 	**VFK1694** EVR Extender board 

Fig.S5

4-2. Mechanical Adjustment Tools

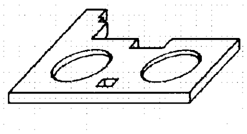
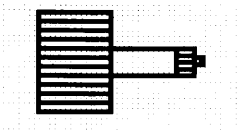
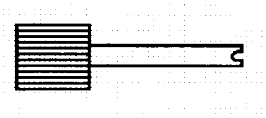
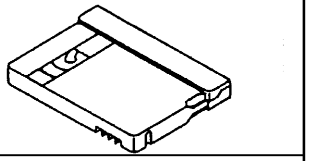
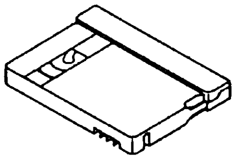
VFK1233 Mech. Neutral Plate 	**VFK1266** Gear Driver 	**VFK1149** Post Driver 	**VFM3110EDS** Alignment Tape (Color Bar) 
VFM3000EDS Alignment Tape (Linearity) 			

Fig.S6

4-3. Extender Cables

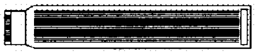
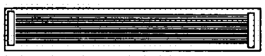
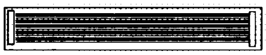
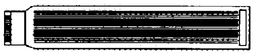
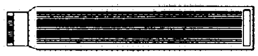
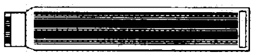
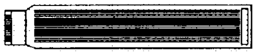
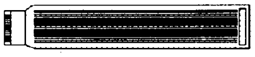
VFK1365 70pin Extender Cable 	**VFK1367** 50pin Extender Cable 	**VFK1284** 24pin Extender Cable 	**VFK1311** 80pin Extender Cable
VFK1389 26pin Extender Cable 	**VFK1387** 30pin Flat Cable 	**VFK1286** 16pin Extender Cable 	**VFK1282** 22pin Extender Cable 
VFK0913 18pin Extender Cable 	**VFK1175** 16pin Extender Cable 	**VFK1176** 13pin Extender Cable 	**VFK1173** 14pin Extender Cable 
VFK1388 12pin Extender Cable 	**VFK1428** 8pin Extender Cable 		

Fig.S7

4-4. Summary Table of Servicing Fixtures and Tools

Parts No.	JIG & EQUIPMENT	AG-EZ1	AG-EZ10	AG-EZ30	AG-DVC15	PURPOSE	REMARK
VFK1173	14pin Extender Cable	Y	N	Y	Y	Circuit Board Extension	
VFK1175	16pin Extender Cable	Y	N	Y	Y	Circuit Board Extension	
VFK1176	13pin Extender Cable	Y	N	Y	Y	Circuit Board Extension	
VFK1149	Post Driver	Y	Y	Y	Y	Tape Post Height Adjustment	
VFM3000EDS	Alignment Tape	Y	Y	Y	Y	Tape Interchangeability Adjustment	
VFM3110EDS	Alignment Tape	Y	Y	Y	Y	Electrical Adjustment	
VFK1266	Gear Driver	Y	Y	Y	Y	Mechanical Maintenance	
VFK1233	Mech. Neutral Plate	Y	Y	Y	Y	Mechanical Maintenance	
VFK1164TCM01	Collimator Set (Infinity Lens)	Y	Y	Y	N	Camera Adjustment	
VFK1164TFGS1	Gray Scale Chart	Y	N	Y	N	Camera Adjustment	
VFK1164TFWC1	White Chart	Y	Y	Y	N	Camera Adjustment	
VFK1164TFCB1	Color Chart	Y	Y	Y	N	Camera Adjustment	
VFK1217	Tape End/Beg Detect Cassette	Y	Y	Y	Y	Sensor Sensitivity Adjustment	
VFK1279	Capstan Adj. Fixture	Y	Y	Y	N	Capstan Slant Adjustment	
VFK1164TAR3A	30.5mm Attachment Ring	N	Y	N	N	Camera Adjustment	
VFK1308P	Measuring Board	N	Y	Y	Y	Test point Board and PC I/F	
VFK1309	EVR Connector Board	N	Y	Y	Y	Connection for PC Adjustment	
VFK0374	C12 Color Conversion Filter	Y	Y	Y	N	Camera Adjustment	
VFK0375	C2 Color Conversion Filter	Y	Y	Y	N	Camera Adjustment	
VFK0547	C8 Color Conversion Filter	Y	Y	Y	N	Camera Adjustment	
VFK1389	EVR Adjustment Software	N	Y	N	N	PC Electrical Adjustment System	
VFK0929	12pin Extender Cable	N	Y	N	N	Circuit Board Extension	
VFK0977	20pin Extender Cable	N	Y	N	N	Circuit Board Extension	
VFK1364	14pin Extender Cable	N	Y	N	N	Circuit Board Extension	
VFK1365	70pin Extender Cable	N	Y	Y	Y	Circuit Board Extension	
VFK1311	80pin Extender Cable	N	Y	Y	Y	Circuit Board Extension	
VFK1367	50pin Extender Cable	N	Y	Y	Y	Circuit Board Extension	
VFK1284	24pin Extender Cable	N	Y	Y	Y	Circuit Board Extension	
VFK1317	30pin Flat Cable	N	Y	Y	Y	Between Meas. & Con. Boards	
VJA0941	DC Cable	N	Y	Y	Y	Power Supply for Measuring Board	
VJA0973	Multi Cable	Y	Y	Y	N	A/V Monitoring and WFM Measure	
VFK1164TAR43	43.0mm Attachment Ring	N	N	Y	Y	Camera Adjustment	
VFK1388	12pin Extender Cable	N	N	Y	Y	Circuit Board Extension	
VFK1389	26pin Extender Cable	N	N	Y	Y	Circuit Board Extension	
VFK1387	30pin Flat Cable	N	N	Y	Y	Circuit Board Extension	
VFK1286	16pin Extender Cable	N	N	Y	Y	Circuit Board Extension	
VFK1282	22pin Extender Cable	N	N	Y	Y	Circuit Board Extension	
VFK1391	EVR Adjustment Software	N	Y	Y	N	PC Electrical Adjustment System	
VFK0913	18pin Extender Cable	N	N	Y	Y	Circuit Board Extension	
VFK0913	8pin Extender Cable	N	N	Y	Y	Circuit Board Extension	
VFK1659	Step-Up Ring(43mm-49mm)	N	N	N	Y	Camera Adjustment	
VFK1660	Step-Up Ring(49mm-62mm)	N	N	N	Y	Camera Adjustment	
VFK1693	EVR Adjustment Software	N	N	N	Y	PC Electrical Adjustment System	
VFK1341	CC Filter (LB40)	N	N	N	Y	Camera Adjustment	
VFK1343	CC Filter (LA40)	N	N	N	Y	Camera Adjustment	
VFK1347	CC Filter (LB120)	N	N	N	Y	Camera Adjustment	
VFK1695	CC Filter (LBA4)	N	N	N	Y	Camera Adjustment	
VFK1696	CC Filter (LBA8)	N	N	N	Y	Camera Adjustment	
VFK1697	CC Filter (LBB4)	N	N	N	Y	Camera Adjustment	
YWV2100RB98	Color Chip Chart	N	N	N	Y	Camera Adjustment	
VFK1345	CC Filter Holder	N	N	N	Y	Camera Adjustment	
VFK1346	CC Filter Holder Step Down Ring	N	N	N	Y	Camera Adjustment	
VFK1481B	LISTA Software	N	N	N	Y	Mechanical Maintenance	
VFK1694	EVR Extender board	N	N	N	Y		

5. LITHIUM BATTERY

5-1. Replacement Procedure

1. Remove the Rear Operation C.B.A.. (Refer to item 3-4-5 & 3-4-6 of the Disassembly Procedures).
2. Unsolder the Lithium battery “VL2020/1HF” and then replace with the new one. (See Figure S11).

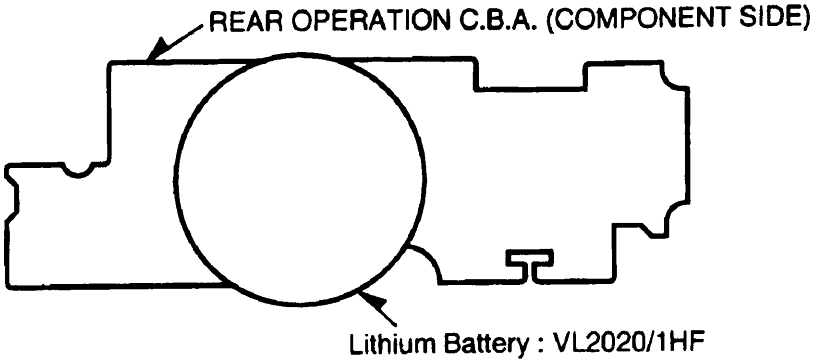

REAR OPERATION C.B.A. (COMPONENT SIDE)
Lithium Battery : VL2020/1HF

Fig.S9

NOTE:

The lithium battery is a critical component (Type No. : VL2020/1HF Manufactured by Panasonic).

It must never be subjected to excessive heat of discharge.

It must therefore only be fitted in equipment designed specifically for its use.

Replacement batteries must be of the same type and manufacture.

They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.

Do not attempt to re-charge the old battery or re-use it for any other purpose.

It should be disposed of in waste products destined for burial rather than incineration.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the equipment manufacturer.
Discard used batteries according to manufacture’s instructions.

SECTION 1

OPERATING INSTRUCTIONS

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ENGLISH
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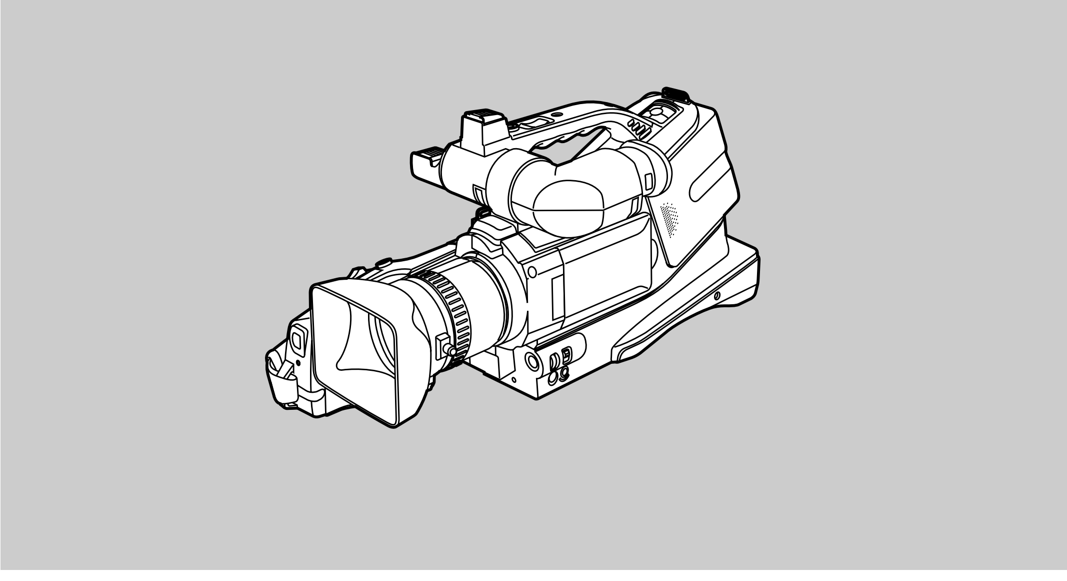
FRANÇAIS
ESPAÑOL

Operating Instructions

Mini DV PAL

Digital Video Camera Recorder

AG-DVC15E



Panasonic

Before attempting to connect, operate or adjust this product, please read these instructions completely.

DEUTSCH

Informationen für Ihre Sicherheit

WICHTIGER HINWEIS
Um die Gefahr eines elektrischen Schlages oder Störungen zu vermeiden, nur das empfohlene Zubehör verwenden und dieses Gerät weder Regen noch Feuchtigkeit aussetzen. Das Gehäuse nie öffnen; im Geräteinneren gibt es keine Teile, die von Laien gewartet werden können. Wenden Sie sich für Reparaturarbeiten bitte an das Fachpersonal.

Digital-Camerarecorder
- **Das Typenschild befindet sich an der Unterseite des Camerarecorders.**

Netzadapter
- **Das Typenschild befindet sich an der Unterseite des Netzadapters.**
- **Dieses Gerät an einem gut belüfteten Ort betreiben, da es sich beim Betrieb erwärmt. Es darf nicht an einem Ort aufgestellt werden, an dem keine ausreichende Luftzirkulation gewährleistet ist, z. B. in einem Bücherregal o. ä.**

■ Die Bedienungsanleitung sorgfältig durchlesen und den Camerarecorder korrekt benutzen.

- **Für Verletzungen oder Sachschäden, die durch unsachgemäße Benutzung entstehen, welche nicht den Anweisungen in der Bedienungsanleitung entspricht, ist der Benutzer allein verantwortlich.**

Den Camerarecorder ausprobieren.
Bevor Sie Ihr erstes wichtiges Ereignis aufnehmen möchten, den Camerarecorder ausprobieren und sich vergewissern, daß er problemlos aufnimmt und korrekt funktioniert.

Der Hersteller übernimmt keine Haftung für den Verlust von aufgezeichnetem Inhalt.
Unter keinen Umständen trägt der Hersteller irgendwelche Haftung für den Verlust von Aufzeichnungen aufgrund von Betriebsstörungen oder Defekten dieses Camerarecorders, seines Zubehörs oder von Cassetten.

Urheberrechte sorgfältig beachten.
Das Aufnehmen von kommerziell vorbespielten Bändern oder Platten bzw. von anderem veröffentlichten oder gesendeten Material, außer für den privaten Gebrauch, kann Urheberrechte verletzen. Selbst für den privaten Gebrauch ist jedoch das Aufnehmen von gewissem Material nicht gestattet.

Seiten mit zusätzlicher Information
Seiten mit zusätzlicher Information sind mit einem Pfeil vor der Seitennummer gekennzeichnet, z. B. (➜ 00).

Besondere Symbole im Text
♦ Anmerkungen und Vorsichtshinweise
- Resultat des vorhergehenden Bedienungsschrittes und zusätzliche Erklärungen.

ENGLISH

Information for Your Safety

WARNING
To reduce the risk of fire or shock hazard and annoying interference, use only the recommended accessories and do not expose this equipment to rain or moisture. Do not remove the cover (or back); there are no user serviceable parts inside. Refer servicing to qualified service personnel.

Camera Recorder
- **The rating plate is on the underside of the Camera Recorder**

AC Adapter
- **The rating plate is on the underside of the AC Adapter.**
- **As this equipment gets hot during use, operate it in a well-ventilated place; do not install this equipment in a confined space such as a bookcase or similar unit.**

■ Carefully read the Operating Instructions and use the Camera Recorder correctly.

- **Injury or material damage resulting from any kind of use that is not in accordance with the operating procedures explained in these Operating Instructions are the sole responsibility of the user.**

Try out the Camera Recorder.
Be sure to try out the Camera Recorder before recording your first important event and check that it records properly and functions correctly.

The manufacturer is not liable for loss of recorded contents.
The manufacturer shall in no event be liable for the loss of recordings due to malfunction or defect of this Camera Recorder, its accessories or cassettes.

Carefully observe copyright laws.
Recording of pre-recorded tapes or discs or other published or broadcast material for purposes other than your own private use may infringe copyright laws. Even for the purpose of private use, recording of certain material may be restricted.

Pages for reference
Pages for reference are indicated with an arrow, for example: (➜ 00)

Special symbols in the text
♦ Notes and cautions
- Result of preceding operation step and additional comments.

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Dear Customer,

We would like to take this opportunity to thank you for purchasing this Panasonic Camera Recorder.

Please read these Operating Instructions carefully and keep them handy for future reference.

Information for Your Safety

WARNING
To reduce the risk of fire or shock hazard and annoying interference, use only the recommended accessories and do not expose this equipment to rain or moisture.
Do not remove the cover (or back); there are no user serviceable parts inside. Refer servicing to qualified service personnel.

Camera Recorder

- The rating plate is on the bottom side of the Camera Recorder.

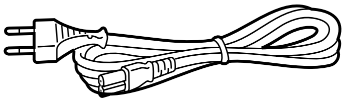
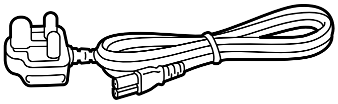
AC Adapter

- The rating plate is on the bottom side of the AC Adapter.
- As this equipment gets hot during use, operate it in a well ventilated place; do not install this equipment in a confined space such as a book case or similar unit.

Caution for AC mains lead

For your safety, please read the following text carefully.

This product is equipped with 2 types of AC mains cable. One is for continental Europe, etc. and the other one is only for U.K.
Appropriate mains cable must be used in each local area, since the other type of mains cable is not suitable.

FOR CONTINENTAL EUROPE, ETC.	**FOR U.K. ONLY**
Not to be used in the U.K. 	If the plug supplied is not suitable for your socket outlet, it should be cut off and appropriate one fitted. 

FOR U.K. ONLY

This appliance is supplied with a moulded three-pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5 amperes and it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark or the BSI mark on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover, the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local Panasonic Dealer.

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt, please consult a qualified electrician.

■ IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

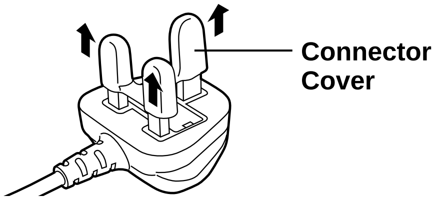
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol ⏚.

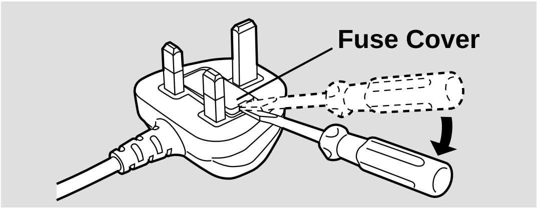
■ Before use

Remove the Connector Cover as follows.

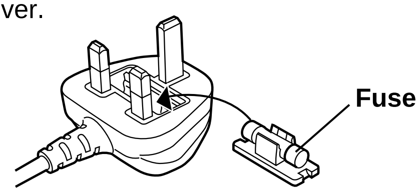


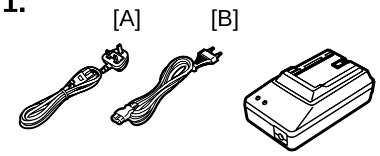
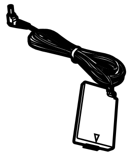
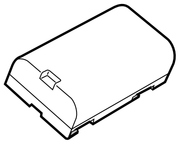
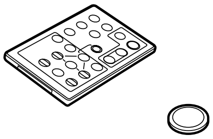
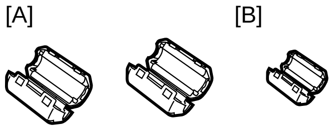
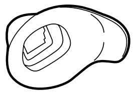
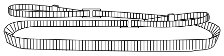
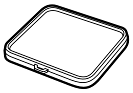
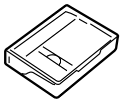
■ How to replace the Fuse

1. Remove the Fuse Cover with a screwdriver.



2. Replace the fuse and attach the Fuse Cover.



1. 	**2.** 	**3.** 
4. 	**5.** 	**6.** 
7. 	**8.** 	**9.** 

DEUTSCH

Mitgeliefertes Zubehör

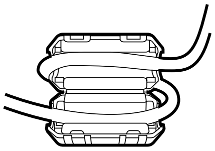
1. **Netzgerät und Netzkabel (➜ 20, 22)**
   [A] Nur Großbritannien
   [B] Alle Gebiete außer Großbritannien

2. **Gleichstromkabel (➜ 20)**

3. **Akku (➜ 22)**

4. **Fernbedienung und Knopfzelle (➜ 106, 112)**

5. **Ferritkerne für DV-Verbindungskabel (➜ 118)**
   [A] Anbringen der Ferritkerne
   Wenn das DV-Verbindungskabel angeschlossen werden soll, ist je ein Ferritkern an beiden Enden des Kabels anzubringen.



   [B] Ferritkern für Mikrophon auf Wunsch

6. **Augenmuschel (➜ 146)**

7. **Tragriemen (➜ 32)**

8. **Objektivdeckel (➜ 60)**

9. **Reinigungscassette**

ENGLISH

Standard Accessories

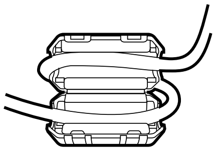
1. **AC Adapter and AC Mains Cable (➜ 20, 22)**
   [A] U.K. only
   [B] All areas except U.K.

2. **DC Input Cable (➜ 20)**

3. **Battery Pack (➜ 22)**

4. **Remote Controller and Button-Type Battery (➜ 106, 112)**

5. **Ferrite Cores for DV Interface Cable (➜ 118)**
   [A] Attaching the Ferrite Cores
   When the DV Interface cable is to be connected, attach one Ferrite Core to one end of the cable and the other one to the other end.



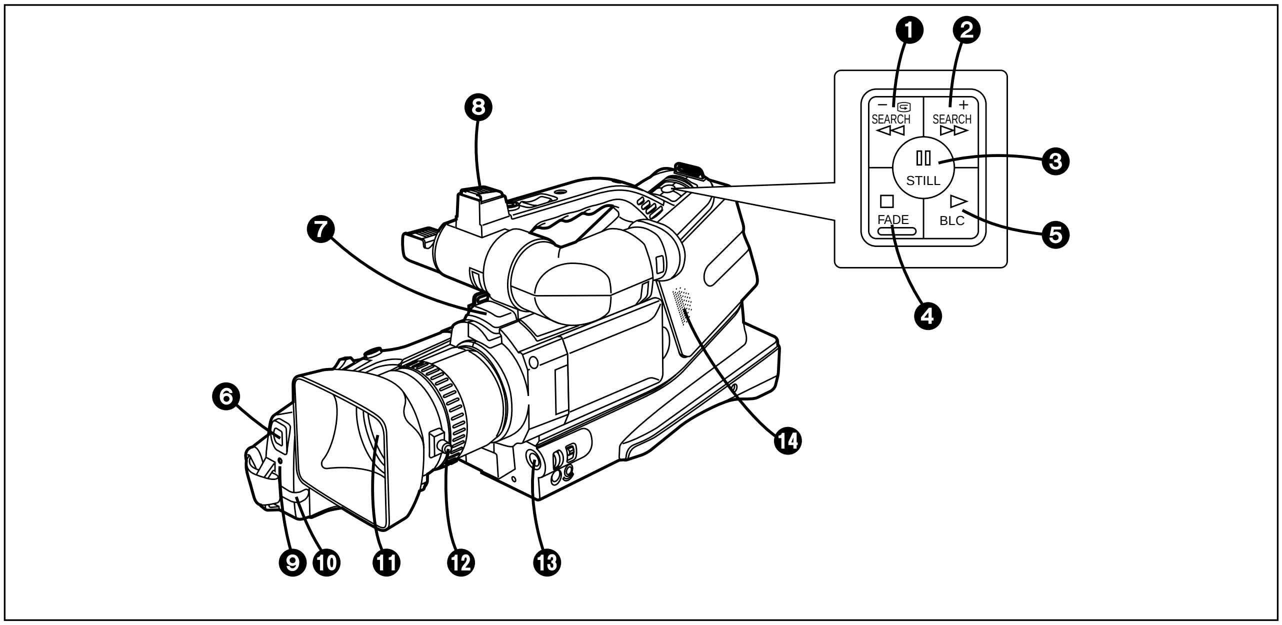
   [B] Ferrite Core for Optional Microphone

6. **Eyepiece (➜ 146)**

7. **Shoulder Strap (➜ 32)**

8. **Lens Cap (➜ 60)**

9. **Cleaning Cassette**



DEUTSCH

Bedienungselemente und Bauteile

❶ **Rückwärts-Suchlauf-Taste/Rückspul-/Rückwärts-Bildsuchlauf-Taste/Aufnahmeprüf-Taste [◀◀] (➜ 36, 50, 52, 62)**

❷ **Vorwärts-Suchlauf-Taste/Vorspul-/Vorwärts-Bildsuchlauf-Taste [▶▶] (➜ 52, 62)**

❸ **Standbild-/Pausentaste [❚❚] (➜ 48, 56)**

❹ **Ein-/Ausblend-Taste/Stopp-Taste [■] (➜ 50, 72)**

❺ **Gegenlicht-Taste/Wiedergabe-Taste [▶] (➜ 36, 50)**

❻ **Weißabgleich-Sensor (➜ 154)**

❼ **Mikrofon (eingebaut, Stereo)**

❽ **Videoleuchtenschuh/Schuhabdeckung**
Dient zur Anbringung der Videoleuchte (Sonderzubehör).
- Um den Schuh zu benutzen, muß die Schuhabdeckung durch Verschieben in Pfeilrichtung entfernt werden.

❾ **Aufnahme-Anzeigelampe (➜ 34)**

❿ **Fernbedienungs-Sensor (➜ 114)**

⓫ **Objektiv**

⓬ **Scharfeinstellring (➜ 40)**

⓭ **Scharfeinstelltaste [FOCUS] (➜ 40)**

⓮ **Lautsprecher (➜ 50)**

ENGLISH

Controls and Components

❶ **Reverse Search Button / Rewind/Review Button / Recording Check Button [◀◀] (➜ 36, 50, 52, 62)**

❷ **Forward Search Button / Fast Forward/ Cue Button [▶▶] (➜ 52, 62)**

❸ **Still Button / Pause Button [❚❚] (➜ 48, 56)**

❹ **Fade Button / Stop Button [■] (➜ 50, 72)**

❺ **Backlight Button / Play Button [▶] (➜ 36, 50)**

❻ **White Balance Sensor (➜ 154)**

❼ **Microphone (built-in, stereo)**

❽ **Video Light Shoe/Shoe Cover**
To Attach the Video Light (optional).
- When using the Shoe, remove the Shoe Cover by sliding it in the direction of the arrow.

❾ **Recording Lamp (➜ 34)**

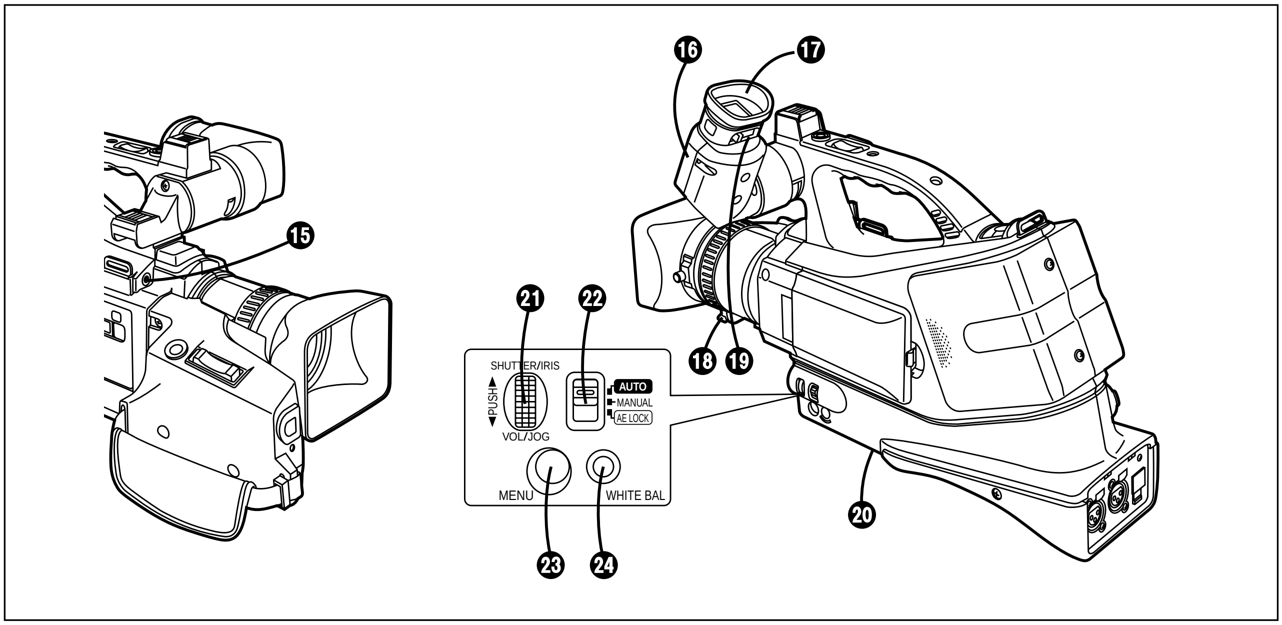
❿ **Remote Control Sensor (➜ 114)**

⓫ **Lens**

⓬ **Focus Ring (➜ 40)**

⓭ **Focus Button [FOCUS] (➜ 40)**

⓮ **Speaker (➜ 50)**



DEUTSCH

⑮ Mikrofonbuchse [MIC]

Zum Anschließen eines externen Mikrofons oder einer Stereoanlage. (Durch Anschluß an diese Buchse wird das eingebaute Mikrofon ausgeschaltet.)

Buchse: Mini-Klinke (M3)
Impedanz: Weniger als 4,7 kOhm
Typ: Stereo

(Beim Anschluß eines Mono-Mikrofons wird auf dem rechten Tonkanal kein Ton aufgezeichnet.)

Empfindlichkeit: Ca. –70 dB
Stromversorgung
für das Mikrofon: Nicht vorhanden

⑯ Sucher (➜ 30)

Aufgrund von technologisch bedingten Beschränkungen in der LCD-Produktion können auf dem Sucherbildschirm u. U. einige winzige helle oder dunkle Punkte sichtbar sein. Dies ist jedoch keine Funktionsstörung, und diese Punkte werden nicht mit aufgezeichnet.

⑰ Okular

⑱ ND-Filter [ND FILTER] (➜ 120)

Dient zur Anpassung an die Lichtquelle, die das Motiv beleuchtet.

⑲ Okularkorrektur-Regler (➜ 30)

⑳ Stativanschluß

Zum Befestigen des Camerarecorders auf einem Stativ (nicht im Lieferumfang).

㉑ Multifunktions-Regler / Taste [PUSH] (➜ 46, 48, 50, 56, 64, 74, 80, 90, 92, 122, 130, 134)

㉒ Modus-Wahlschalter [AUTO / MANUAL / AE LOCK] (➜ 34, 40, 74, 86, 88, 90, 92, 94)

㉓ Menü-Taste [MENU] (➜ 46, 48, 64, 74, 80, 82, 84, 122, 130)

㉔ Weißabgleichtaste [WHITE BAL] (➜ 86, 88)

ENGLISH

⑮ Microphone Socket [MIC]

To connect an external microphone or audio equipment. (Connecting to this socket deactivates the built-in microphone.)

Socket: M3-type
Impedance: Less than 4.7 kohm
Type: Stereo

(When connecting a mono microphone, no sound is recorded on the right channel.)

Sensitivity: Approx. –70 dB
Power Source
for Microphone: Not available

⑯ Finder (➜ 30)

Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the Finder screen. However, this is not a malfunction and does not affect the recorded picture.

⑰ Eyepiece

⑱ ND Filter [ND FILTER] (➜ 120)

To match the light source which is illuminating the subject.

⑲ Eyepiece Corrector Knob (➜ 30)

⑳ Tripod Receptacle

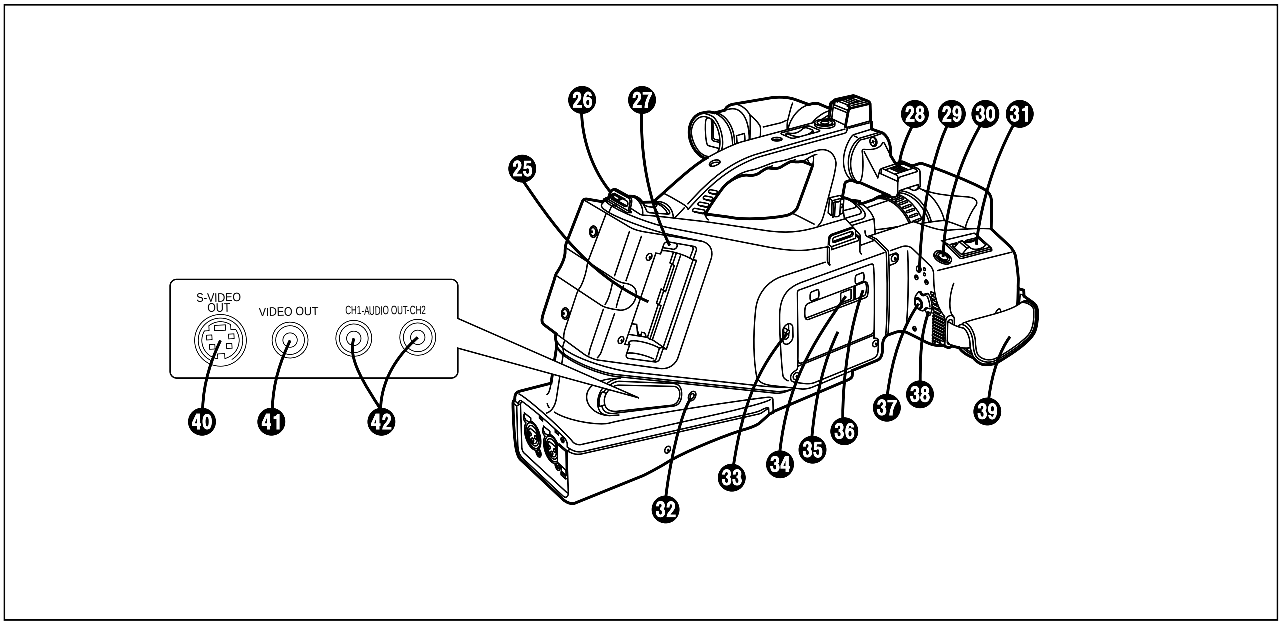
To mount the Camera Recorder on an optional tripod.

㉑ Multi-Function [PUSH] Dial (➜ 46, 48, 50, 56, 64, 74, 80, 90, 92, 122, 130, 134)

㉒ Mode Selector [AUTO / MANUAL / AE LOCK] (➜ 34, 40, 74, 86, 88, 90, 92, 94)

㉓ Menu Button [MENU] (➜ 46, 48, 64, 74, 80, 82, 84, 122, 130)

㉔ White Balance Button [WHITE BAL] (➜ 86, 88)



DEUTSCH

㉕ **Akkufach (➜ 22)**

㉖ **Halterungen für den Schultertrageriemen (➜ 32)**

㉗ **Akku-Auswurfhebel (➜ 22)**

㉘ **Mikrofonschuh/Schuhabdeckung**
Dient zur Anbringung des Stereo-Zoommikrofons (Sonderzubehör).
●Um den Schuh zu benutzen, muß die Schuhabdeckung durch Verschieben in Pfeilrichtung entfernt werden.

㉙ **Umschalttaste für den Wiedergabe-Modus/ Aufnahme-Modus und Lampen [VCR] und [CAMERA] (➜ 34, 50)**

㉚ **Standbild-Aufnahmetaste [PHOTO SHOT] (➜ 44)**

㉛ **Zoomhebel [W/T] (➜ 42)**

㉜ **Kopfhörerbuchse [PHONES]**
An Kopfhörer.

㉝ **Cassettenauswurfhebel [⏏ EJECT] (➜ 26)**

㉞ **Cassettenfach-Fenster (➜ 26)**

㉟ **Cassettenfach (➜ 26)**

㊱ **Cassettenfach-Schließknopf [PUSH TO CLOSE] (➜ 26)**

㊲ **Aufnahme-Start-/Stopp-Taste (➜ 34)**

㊳ **Ein-/Aus-Schalter [POWER] (➜ 30, 34)**

㊴ **Handgriff-Riemen (➜ 32)**

㊵ **S-Video-Ausgangsbuchse [S-VIDEO OUT] (➜ 58, 116)**
An Monitor mit S-Video-Eingang.

㊶ **Video-Ausgangsbuchse [VIDEO OUT] (➜ 58, 116)**
An Monitor.

㊷ **Audio-Ausgangsbuchse CH1/CH2 [AUDIO OUT CH1/CH2] (➜ 58, 116)**
An Audiogerät.

ENGLISH

㉕ **Battery Compartment (➜ 22)**

㉖ **Shoulder Strap Holders (➜ 32)**

㉗ **Battery Eject Lever (➜ 22)**

㉘ **Microphone shoe/shoe cover**
To Attach the Stereo Zoom Microphone (optional).
●When using the Shoe, remove the Shoe Cover by sliding it in the direction of the arrow.

㉙ **VCR (Playback) Mode / Camera (Recording) Mode Button (and Lamps) (➜ 34, 50)**

㉚ **Photoshot Button [PHOTO SHOT] (➜ 44)**

㉛ **Zoom Lever [W/T] (➜ 42)**

㉜ **Headphone Jack [PHONES]**
To Headphone.

㉝ **Cassette Eject Lever [⏏ EJECT] (➜ 26)**

㉞ **Cassette Compartment Window (➜ 26)**

㉟ **Cassette Compartment (➜ 26)**

㊱ **Cassette Compartment Close Button [PUSH TO CLOSE] (➜ 26)**

㊲ **Recording Start/Stop Button (➜ 34)**

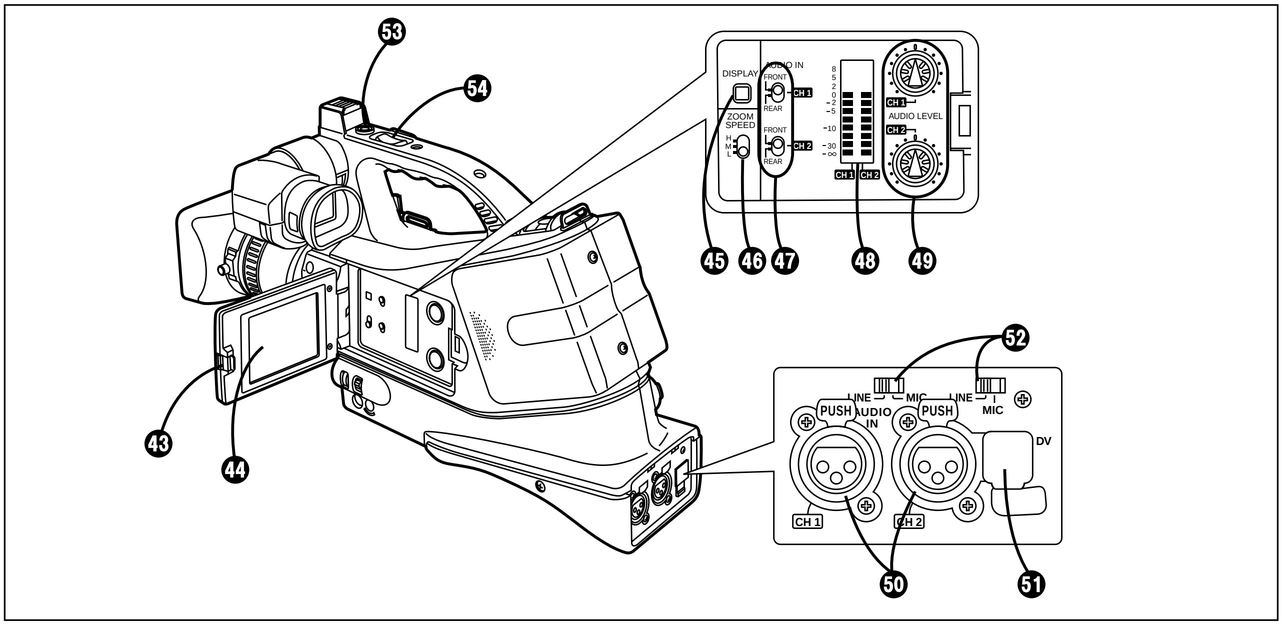
㊳ **Power Switch [POWER] (➜ 30, 34)**

㊴ **Grip Belt (➜ 32)**

㊵ **S-Video Output Connector [S-VIDEO OUT] (➜ 58, 116)**
To monitor TV with S-Video.

㊶ **Video Output Connector [VIDEO OUT] (➜ 58, 116)**
To monitor TV.

㊷ **Audio Output CH1/CH2 Jack [AUDIO OUT CH1/CH2] (➜ 58, 116)**
To audio equipment.



DEUTSCH

㊸ Öffnungshebel für den LCD-Monitor (➜ 30)

㊹ LCD-Monitor (➜ 30)

> Aufgrund von technologisch bedingten Beschränkungen in der LCD-Produktion können auf dem LCD-Monitor-Bildschirm u. U. einige winzige helle oder dunkle Punkte sichtbar sein. Dies ist jedoch keine Funktionsstörung, und diese Punkte werden nicht mit aufgezeichnet.

㊺ DISPLAY
Dient zur Ausgabe von Menüs, Funktionen und Operationen an LCD-Monitor, VIDEO OUT und S-VIDEO OUT.

㊻ ZOOM SPEED (➜ 42)
Dient zur Einstellung der Geschwindigkeit von HANDLE ZOOM auf drei Stufen.

㊼ AUDIO IN FRONT/REAR-Wahlschalter
FRONT: Auf der Vorderseite eingebautes Mikrofon wird als LINE-Eingang verwendet.
REAR: Audio-Line auf der Hinterseite wird als LINE-Eingang verwendet.

㊽ Pegelmesser AUDIO CH1/CH2
Zeigt den Audiopegel auf dem LCD an.

㊾ Aufnahmepegelregler AUDIO REC CH1/CH2

㊿ Audio-Eingangsbuchsen AUDIO IN CH1/CH2

(51) DV-Eingangs-/Ausgangsbuchse (➜ 118)
Für die Eingabe und Ausgabe von digitalen Video- und Audio-Signalen.

(52) Audio-Wahlschalter MIC/LINE
LINE: XLR-Eingang wird als LINE-Eingang verwendet.
MIC: XLR-Eingang wird als MIC-Eingang verwendet.

(53) Aufnahme-Start/Stopp-Taste REC START/STOP (➜ 34)

(54) Zoomtaste HANDLE ZOOM (➜ 42)
Dient zur Betätigung des Zooms, dessen Geschwindigkeit mit dem Schalter ZOOM SPEED im LCD-Monitor 3fach verstellt werden kann.

ENGLISH

㊸ LCD Monitor Open Lever (➜ 30)

㊹ LCD Monitor (➜ 30)

> Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the LCD Monitor screen. However, this is not a malfunction and does not affect the recorded picture.

㊺ DISPLAY
To display menus, functions ans operations on monitor LCD, VIDEO OUT and S-VIDEO OUT.

㊻ ZOOM SPEED (➜ 42)
To set the speed of HANDLE ZOOM in three levels.

㊼ AUDIO IN FRONT/REAR SELECTOR SWITCH
FRONT: Front built-in microphone is used as LINE Input.
REAR: Rear Audio Line is used as LINE Input.

㊽ AUDIO CH1/CH2 LEVEL METER
To show the Audio Level meter of LCD type.

㊾ AUDIO REC CH1/CH2 LEVEL VOLUME

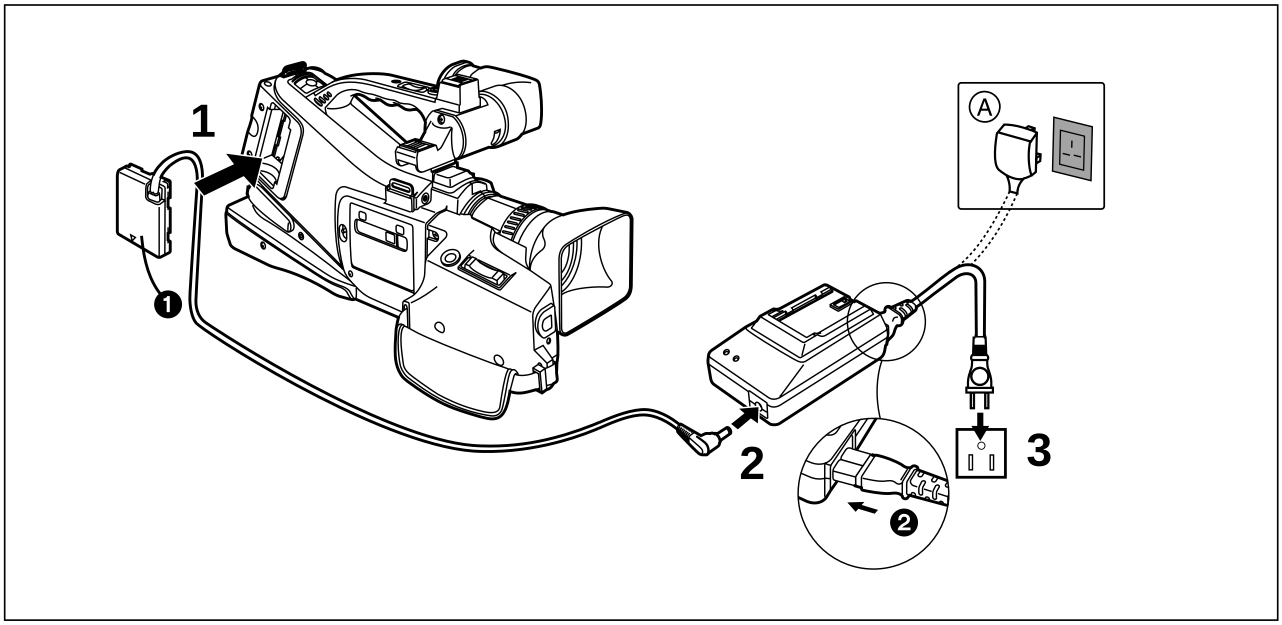
㊿ AUDIO IN CH1/CH2 CONNECTORS

(51) DV Input/Output Terminal (➜ 118)
To input and output digital video and audio signals.

(52) AUDIO MIC/LINE SELECTOR SWITCH
LINE: XLR Input is used as LINE Input.
MIC: XLR Input is used as MIC Input.

(53) REC START/STOP BUTTON (➜ 34)

(54) HANDLE ZOOM SWITCH (➜ 42)
To operate zooming that can be changed to 3 speed using the ZOOM SPEED SWITCH inside the LCD Monitor.



DEUTSCH

Die 2 Arten der Stromversorgung

1) Netzadapter (mitgeliefert) zur Stromversorgung von einer Netzsteckdose
2) Akku (mitgeliefert) (➜ 22)

■ Stromversorgung von einer Netzsteckdose

1 Die an die Akkuform angepasste Anschlussplatte des Gleichstromkabels ❶ in den Camerarecorder einführen.

2 Das andere Ende des Gleichstrom-Eingangskabels an den Netzadapter anschließen.

3 Das Netzkabel an eine Netzsteckdose anschließen.

Ⓐ Nur für Vereinigtes Königreich

- ●Der Stecker des Netzkabels kann nicht vollständig in die Buchse des Netzadapters eingeschoben werden. Der Abstand, um den der Stecker bei korrektem Anschluß aus der Buchse hervorsteht, ist aus der obigen Abbildung ❷ ersichtlich.
- ♦ Vor dem Herausziehen des Netzkabels den Ein-/Aus-Schalter am Camerarecorder unbedingt auf [OFF] stellen.
- ♦ **Bei längerem Einsatz des Camerarecorders erhitzt sich das Gerät; dies ist jedoch normal.**

Wenn das Gerät für längere Zeit nicht verwendet werden soll, es ausschalten und das Netzkabel aus der Netzsteckdose ziehen.

ENGLISH

The 2 Types of Power Supplies

1) AC Adapter (supplied) to supply power from an AC mains socket
2) Battery (supplied) (➜ 22)

■ Supplying Power from an AC Mains Socket

1 Insert the battery-shaped connector of the DC Input Cable ❶ into the Camera Recorder.

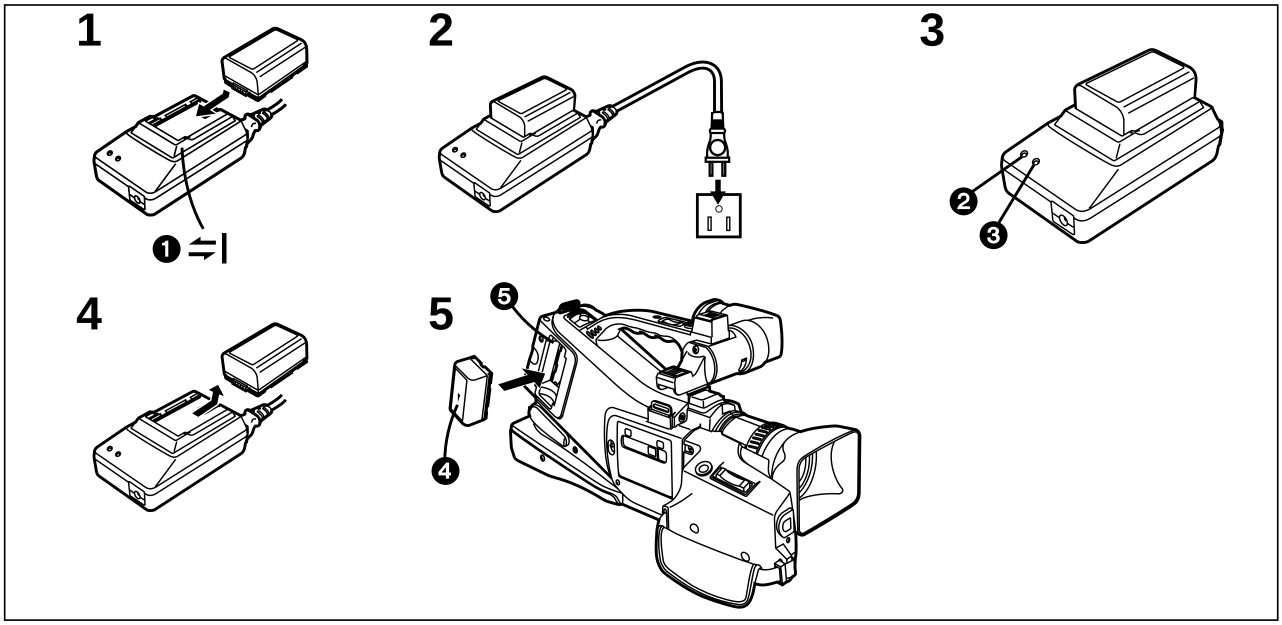
2 Connect the other end of the DC Input Cable to the AC Adapter.

3 Connect the AC Mains Cable to an AC mains socket.

Ⓐ U.K. only

- ●The AC Mains Lead’s outlet plug cannot be pushed fully into the AC Adapter socket. A gap will remain as shown ❷.
- ♦ Before disconnecting the AC Mains Cable, set the [POWER] Switch to [OFF].
- ♦ **If you use the Camera Recorder for a long time, it becomes warm. However, this is normal.**

If the unit is not going to be used for length of time, turn the power switch [OFF] and disconnect the AC Mains Cable from the AC mains socket.



DEUTSCH

■ Stromversorgung über Akku

Laden Sie den Akku vor Gebrauch voll auf.

1 Die Vorderkante des Akkus auf die Markierung ❶ an der Seite des Netzgerätes ausrichten, dann den Akku horizontal einschieben, bis er mit einem Klicken einrastet.

- Falls das Gleichstromkabel an das Netzgerät angeschlossen ist, muss es abgezogen werden, weil sonst Laden nicht möglich ist.

2 Das Netzkabel an eine Netzsteckdose anschließen.

- Die Lampen [POWER] ❷ und [CHARGE] ❸ leuchten auf, und der Ladevorgang beginnt.
- Falls die Lampe [CHARGE] nicht aufleuchtet, obwohl der Akku angebracht ist, den Akku abnehmen und erneut anbringen.

3 Wenn die Lampe [CHARGE] am Netzgerät erlischt, ist der Ladevorgang beendet.

4 Den Akku abnehmen, indem er in die entgegengesetzte Richtung des obigen Schritts 1 geschoben wird.

- Das Netzkabel ist ebenfalls abzuziehen.

5 Den Akku so einführen, dass ❹ nach unten zeigt.

Abnehmen des Akkus

Den Akkuauswerfknopf ❺ drücken.

- ♦ Halten Sie Ihre Hand vor das Akkufach, um Herunterfallen des Akkus zu verhüten.
- ♦ Stellen Sie den Schalter [POWER ON/OFF] vor dem Abnehmen des Akkus auf [OFF].

ENGLISH

■ Supplying Power with the Battery

Before use, fully charge the Battery.

1 Have the front edge of the battery lined up with the ❶ mark on the side of the AC Adapter, and then slide it horizontally until it locks with a click.

- If the DC Input Cable is connected to the AC Adapter, disconnect it as charging is not possible otherwise.

2 Connect the AC Mains Cable to an AC mains socket.

- The [POWER] Lamp ❷ and the [CHARGE] Lamp ❸ light and charging starts.
- If the [CHARGE] Lamp does not light even though the Battery is attached, remove the Battery and then reattach it.

3 When the [CHARGE] Lamp on the AC Adapter goes out, charging is finished.

4 Remove the Battery by sliding it in the opposite direction of Step 1 above.

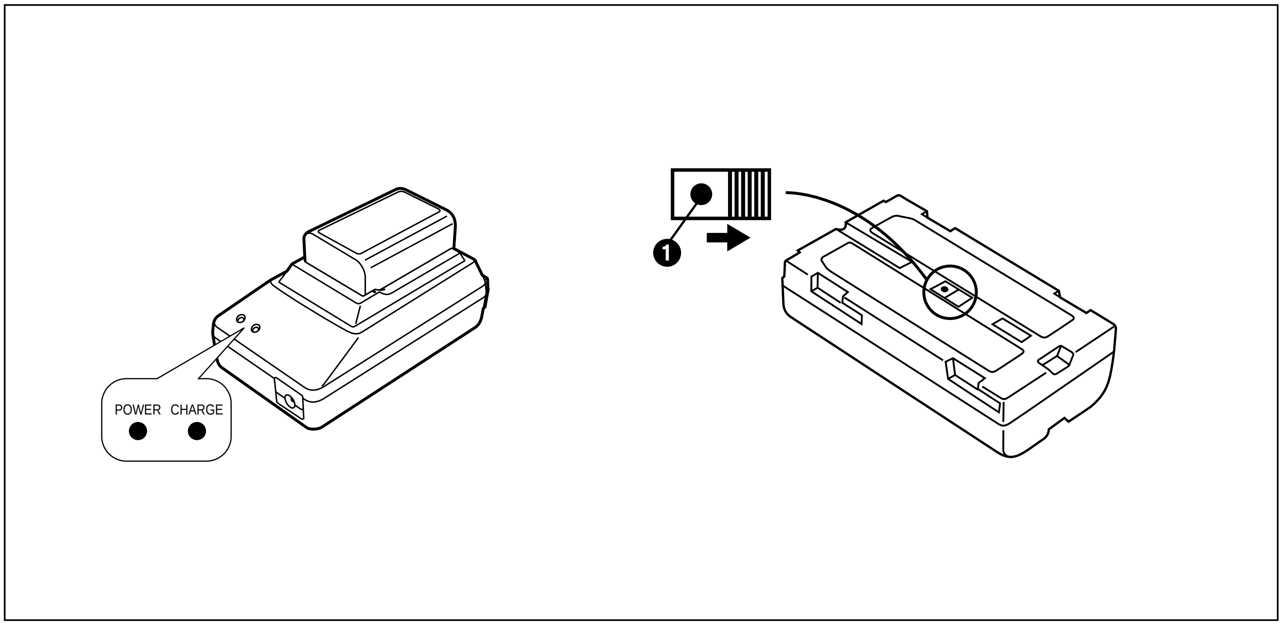
- Also disconnect the AC Power Cable.

5 Insert the Battery with ❹ pointing downside.

Removing the Battery

Press the Battery Eject Batton ❺.

- ♦ Hold your hand over the Battery Compartment to prevent the Battery from dropping.
- ♦ Before removing the Battery, set the [POWER ON/OFF] Switch to [OFF].



DEUTSCH

Aufladedauer und maximale Aufnahmedauer für Daueraufnahme

Akku	Aufladedauer	Max. ununterbrochene Aufnahmedauer
Mitgeliefert	120 Min.	60 Min.

(Bei den in der obigen Tabelle aufgeführten Zeiten handelt es sich um Näherungswerte. Die Zeiten in Klammern gelten für den Aufnahmebetrieb mit LCD-Monitor.)
Die obigen zu Ihrer Information angegebenen Zeiten geben die Aufnahmedauer bei einer Umgebungstemperatur von 20 °C und einer relativen Luftfeuchtigkeit von 60 % an. Bei niedrigerer oder höherer Temperatur kann eine längere Aufladedauer nötig sein.

- ♦ Während des Betriebs und des Aufladens kann sich der Akku erwärmen. Auch der Camerarecorder kann während des Einsatzes warm werden.
- ♦ Bei oft wiederholtem Aufnahmestart und -stopp ist die mögliche Aufnahmedauer kürzer als oben angegeben.
- ● Wenn Sie den Akku längere Zeit nicht benutzen, bitte die Vorsichtshinweise für die Aufbewahrung durchlesen (➜ 144).

■ Ladekontrolllampe [CHARGE]

Erleuchtet: Während des Ladevorgangs
Erloschen: Der Akku ist voll geladen.

Wenn die Lampe [CHARGE] ständig blinkt

Falls die Temperatur des Akkus extrem niedrig oder hoch ist, blinkt die Lampe [CHARGE] am Netzgerät ständig. Die Lampe blinkt auch ständig, wenn eine Funktionsstörung im Akku oder Netzgerät aufgetreten ist.
Einzelheiten finden Sie unter “Hinweise zum Netzgerät” (➜ 136).

Benutzung der Ladezustands-Markierung

Mit Hilfe dieser Markierung lassen sich vollständig aufgeladene Akkus problemlos von entladenen Akkus unterscheiden.
Dazu beispielsweise den geriffelten Schieber so verschieben, daß für vollständig aufgeladene Akkus der rote Punkt (●) ❶ sichtbar ist.

ENGLISH

Charging Time and Maximum Time for Continuous Recording

Battery	Charging Time	Max. Continuous Recording Time
Supplied	120 min.	60 min.

(The times shown in the above chart are approximations. The figures in parentheses show the recording time when using the LCD Monitor.)
The times listed above for your information indicate the duration of recording performed at an ambient temperature of 20°C and 60% relative humidity. The charging time may be longer when you charge the Battery at higher or lower temperature.

- ♦ During use and charging, the Battery becomes warm. The Camera Recorder, too, becomes warm during use.
- ♦ When you repeatedly stop and restart recording, the recording time per Battery is shorter than listed above.
- ● If you do not use the Battery for a long time, please read the Precautions for Storage (➜ 144).

■ Charge Lamp [CHARGE]

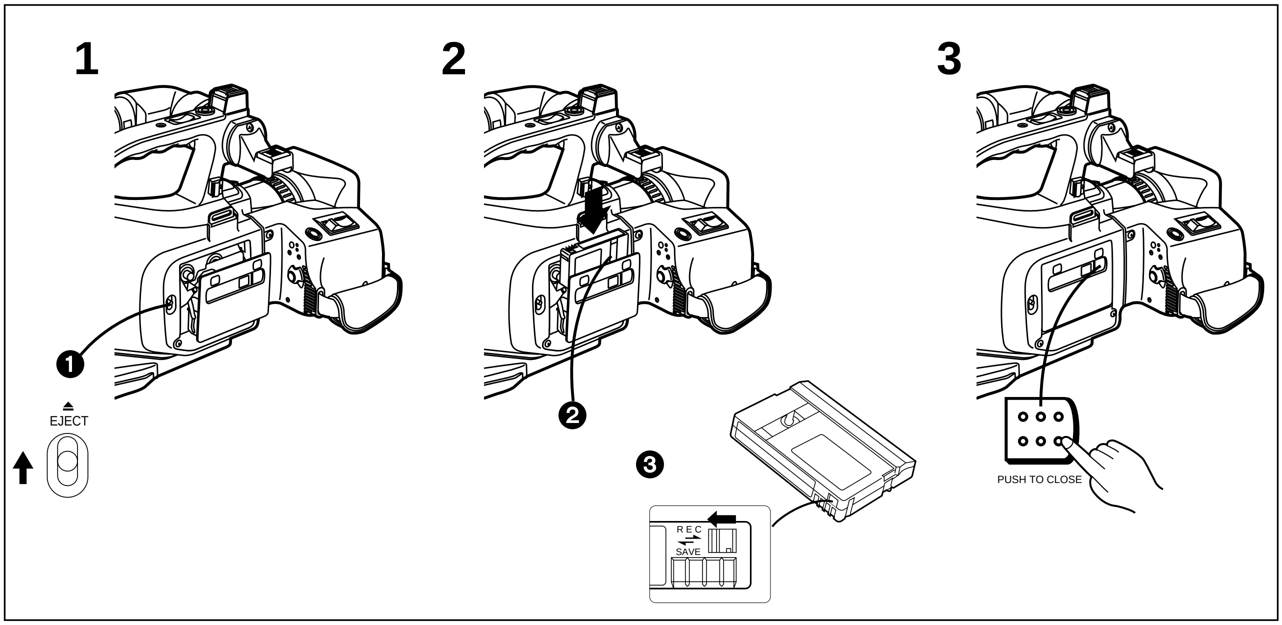
Lighted: During charging
Off: The Battery is fully charged.

When the [CHARGE] Lamp Flashes Continuously

If the temperature of the Battery is extremely low or extremely high, the [CHARGE] Lamp on the AC Adapter flashes continuously. It also flashes continuously when some malfunction has occurred in the Battery or the AC Adapter.
For details, read “Notes about the AC Adapter” (➜ 136).

Using the Charge Confirmation Marker

You can use this marker to easily distinguish between charged and discharged Batteries.
For example, slide the knob so that the red dot (●) ❶ is visible after the charging is completed.



DEUTSCH

Einsetzen der Cassette

1. **Den Hebel [≜ EJECT] ❶ nach oben schieben, um das Cassettenfach zu öffnen.**
2. **Die Cassette einsetzen.**
   Die Cassette so ausrichten, wie in ❷ oben gezeigt.
3. **Den Cassettenfachdeckel schließen und durch Drücken der Taste [PUSH TO CLOSE] verriegeln.**

- ● Wenn der Camerarecorder mit Strom versorgt wird, kann der obige Schritt 1 auch ohne Einschalten des Camerarecorders durchgeführt werden.
- ♦ Beim Einsetzen der Cassette sicherstellen, daß sie richtig ausgerichtet ist, und sie dann bis zum Anschlag gerade nach unten schieben.
- ● Beim Einsetzen einer Cassette, auf der bereits aufgenommen wurde, zuerst mit der Funktion Kamerasuchlauf (➜ 62) die Position auffinden, ab welcher die neue Aufnahme gemacht werden soll.
- ● Beim Einsetzen einer neuen Cassette das Band zum Anfang zurückspulen, bevor Sie mit dem Aufnehmen beginnen.

Schutz einer Aufnahme vor unbeabsichtigtem Löschen
Das Öffnen des Löschschutzschiebers an der Cassette ❸ (in Richtung des Pfeils [SAVE] schieben) verhindert das Aufnehmen. Um auf eine so geschützte Cassette wieder aufnehmen zu können, den Löschschutzschieber schließen (in Richtung des Pfeils [REC] schieben).

Hinweis:
Eine Langspiel-Mini DV Cassette (SP/80 min., LP/120 min.), die auf diesem Camerarecorder bespielt wurde, kann nicht auf einem DVCPRO- oder DVCPRO 50-Videorecorder wiedergegeben oder bespielt werden.

ENGLISH

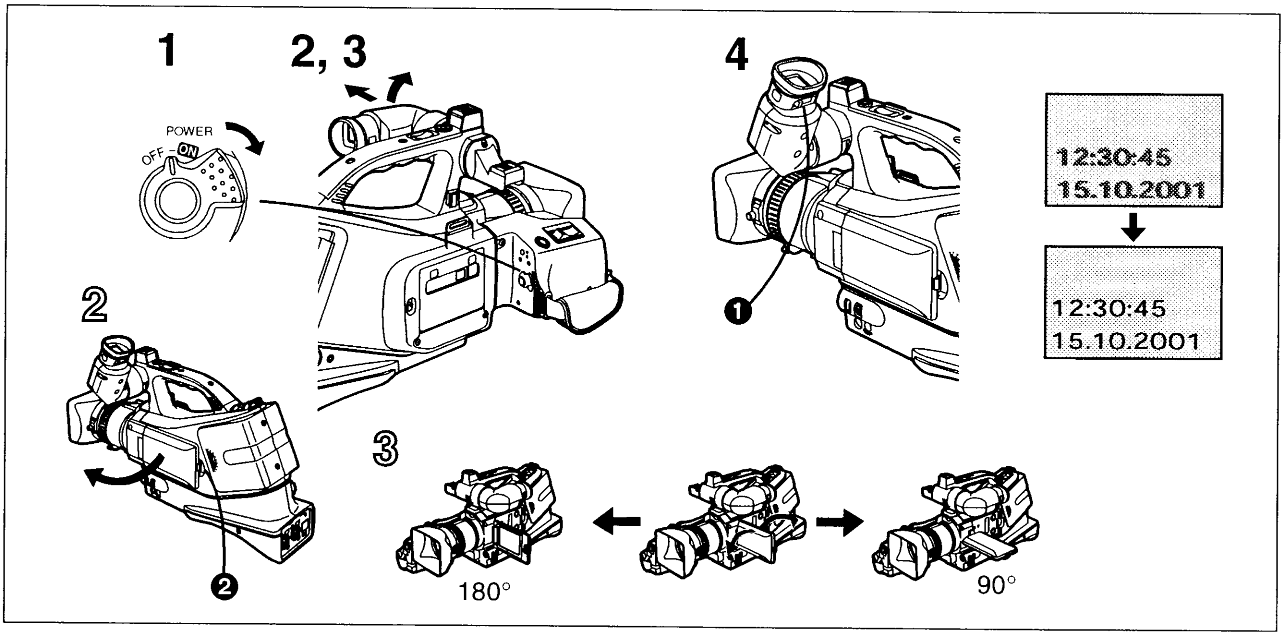
Inserting the Cassette

1. **Slide the [≜ EJECT] Lever ❶ upward to open the Cassette Compartment.**
2. **Insert the cassette.**
   Insert the cassette with its window in position ❷.
3. **Close the Cassette Compartment and press the [PUSH TO CLOSE] Button to lock the Cassette Compartment.**

- ● If the Camera Recorder is supplied with power, the above operation step 1 can be operated without turning on the Camera Recorder.
- ♦ When inserting the cassette, make sure it faces in the right direction and then push in straight down until it stops.
- ● When you insert a cassette onto which you have recorded before, use the Camera Search Function (➜ 62) to search for the position from which you want to continue recording.
- ● When you insert a new cassette, rewind the tape to the beginning before starting to record.

Preventing Accidental Erasure of Recordings
Opening the cassette’s erasure prevention slider ❸ (sliding it in the direction of the [SAVE] arrow) prevents recording. To record again, close the erasure prevention slider (slide it in the direction of the [REC] arrow).

Note:
A long-Play Mini DV Cassette (SP:80min., LP120min.) that was recorded on this Camera Recorder should not be used for playback or recording on a DVCPRO or DVCPRO 50 format VCR.



DEUTSCH

Benutzen des Suchers

Vor dem Benutzen des Suchers diesen präzis so auf die Sehkraft Ihrer Augen abstimmen, daß die Anzeigen im Sucher klar und deutlich sichtbar sind.

1. **Den Schalter [POWER] auf [ON] stellen.**
2. **Den Sucher herausziehen.**
   Der Ausziehabstand des Suchers kann eingestellt werden.
3. **Den Sucher nach oben schwenken.**
   Der Schwenkwinkel des Suchers kann eingestellt werden.
4. **Das Okular durch Verschieben des Okularkorrekturknopfes ❶ einstellen.**
   Die Helligkeit des Suchers kann auf dem Menü eingestellt werden. (➜ 122-128, 134)

- Das Sucherbild kann einen stärkeren Rotstich als das Monitorbild aufweisen, was jedoch normal ist.

Benutzen des LCD-Monitors

Sie können auch aufnehmen, während Sie das Motiv auf dem geöffneten LCD-Monitor betrachten.

1. **Den Schalter [POWER] auf [ON] stellen.**
2. **Den Hebel [PUSH OPEN] schieben und den LCD-Monitor in Pfeilrichtung um ca. 90° öffnen.**
   Der Sucher schaltet automatisch ab.

Einstellen des Winkels

3. **Den Winkel des LCD-Monitors dem gewünschten Aufnahmewinkel entsprechend einstellen.**
   - ♦ Der LCD-Monitor läßt sich aus seiner normalen senkrechten Stellung um maximal 180° nach oben und vorne ❷ und 90° nach unten ❸ drehen. Ein gewaltsames Drehen über diesen Bereich hinaus könnte den Camerarecorder ernsthaft beschädigen.
   - Sie können die Farbsättigung und Helligkeit des LCD-Monitors im Menü regeln. (➜ 122-128, 134)

Schließen des LCD-Monitors

Den LCD-Monitor gegen das Cameragehäuse schwenken, bis der Hebel [PUSH OPEN] mit einem Klick einrastet.

ENGLISH

Using the Finder

Before using the Finder, adjust it to your eyesight so that the indications in the Finder are clear and easy to read.

1. **Set the [POWER] Switch to [ON].**
2. **Slide the Finder outward.**
   The Finder can be adjusted outward.
3. **Slide the Finder upward.**
   The angle of the Finder can be adjusted upward.
4. **Adjust by sliding the Eyepiece Corrector Knob ❶.**
   You can adjust the brightness of the Finder on the Menu. (➜ 122-128, 134)

- The viewfinder image may have more of a red hue than the monitor TV image; however, this is normal.

Using the LCD Monitor

It is also possible to record while viewing the picture on the opened LCD Monitor.

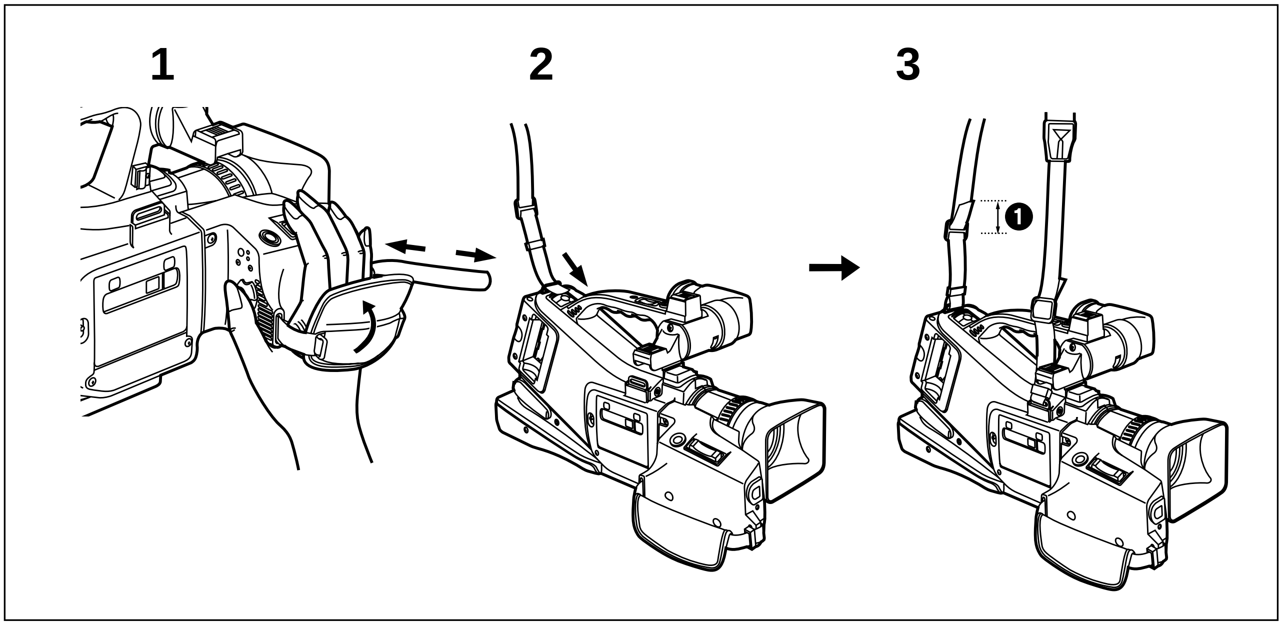
1. **Set the [POWER] Switch to [ON].**
2. **Push the [PUSH OPEN] Lever and turn out the LCD Monitor approximately 90° in the direction of the arrow.**
   The Finder turns off.

Adjusting the Angle

3. **Adjust the angle of the LCD Monitor according to the desired recording angle.**
   - ♦ The LCD Monitor rotates upward a maximum of 180° ❷ and downward a maximum of 90° ❸ from its normal vertical position. Trying to forcefully rotate it beyond this range could seriously damage the Camera Recorder.
   - You can adjust the colour level and brightness of the LCD Monitor on the Menu. (➜ 122-128, 134)

Closing the LCD Monitor

Push the LCD Monitor close until the [PUSH OPEN] Lever locks with a click.



DEUTSCH

Verstellen des Handgriffriemens

Sie können den Handgriffriemen auf die Größe Ihrer Hand einstellen.

1 Den Verschluß des Handgriffriemens öffnen und seine Länge Ihrer Hand anpassen.

Befestigen des Schultertrageriemens

Bevor Sie zum Aufnehmen aus dem Hause gehen, empfiehlt es sich, den Schultertrageriemen zu befestigen, um den Camerarecorder gegen Stürze zu sichern.

2 Das Ende des Schultertrageriemens durch die Halterung für den Schultertrageriemen am Camerarecorder ziehen.

3 Das Ende des Riemens zurückbiegen und durch die Schnalle für die Längenverstellung führen.

Das Ende des Schultertrageriemens sollte mehr als 2 cm ❶ über die Schnalle herausragen, so daß es nicht herausrutschen kann.

ENGLISH

Adjusting the Grip Belt

You can adjust the Grip Belt to the size of your hand.

1 Open the Grip Belt Cover and adjust the length of the Grip Belt.

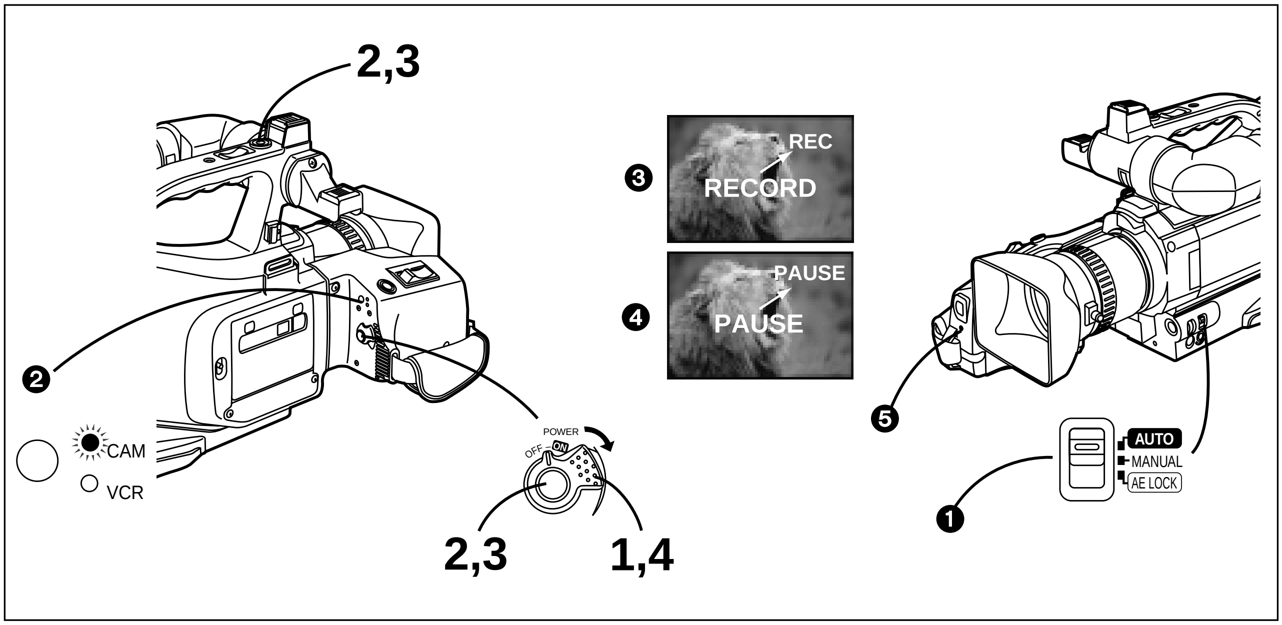
Attaching the Shoulder Strap

Before you go recording outside, we recommend that you attach the Shoulder Strap to prevent the Camera Recorder from dropping accidentally.

2 Pull the end of the Shoulder Strap through the Shoulder Strap Holder on the Camera Recorder.

3 Fold the end of the Shoulder Strap back and pull it through the Shoulder Strap Length Adjuster.

Pull it out more than 2 cm ❶ from the Shoulder Strap Length Adjuster so that it cannot slip off.



DEUTSCH

Aufnehmen

Wenn der Modus-Wahlschalter auf [AUTO] ❶ eingestellt ist, können Sie ganz einfach den Camerarecorder einschalten und durch Drücken der Start-/Stopp-Taste mit dem Aufnehmen beginnen. Der Camerarecorder erledigt dabei die Scharfeinstellung und den Weißabgleich automatisch.
Die Start-Stopp-Taste befindet sich am Griff und dem Halter.

- Je nach Aufnahmesituation und Beleuchtung sind korrekte automatische Scharfeinstellung und Weißabgleich u. U. nicht möglich. In solchen Fällen sollten Sie diese manuell durchführen.
  Scharfeinstellung: (➜ 40); Weißabgleich: (➜ 86, 88)

1 Den Schalter [POWER] auf [ON] stellen.
Die Lampe [CAMERA] leuchtet auf. ❷

2 Die Start-/Stopp-Taste drücken.
Die Aufnahme beginnt.
Die Anzeige [RECORD] erscheint kurz und wechselt dann auf [REC]. ❸

3 Zum Umschalten auf Aufnahmepause: Die Start-/Stopp-Taste erneut drücken.
Die Anzeige [PAUSE] erscheint. ❹

4 Zum Beenden der Aufnahme: Den Schalter [POWER] auf [OFF] stellen.

♦ **Wenn Sie den Camerarecorder länger als 6 Minuten im Modus Aufnahmepause lassen, schaltet er sich automatisch aus, um das Band zu schützen und Akkustrom zu sparen. Um aus diesem Zustand erneut aufzunehmen, den Schalter [POWER] zuerst auf [OFF] und dann wieder auf [ON] stellen.**

Aufnahmeanzeigelampe

Die Aufnahmeanzeigelampe ❺ leuchtet, damit Ihre Akteure wissen, wann die Aufnahme läuft.
Wenn Sie [NEXT MENU] im Menü wählen und dann [REC LAMP] auf [OFF] einstellen, leuchtet die Aufnahmeanzeigelampe nicht mehr auf. (➜ 122-126)

ENGLISH

Recording

When the Mode Selector is set to [AUTO] ❶, you can simply turn on the Camera Recorder and press the Start/Stop Button to start recording, and the focus and white balance are adjusted automatically.
Start/Stop Button is located at the grip and the handle.

- Depending on the light source and recording situation, correct automatic focusing and white balance adjustment may not be possible. In such cases, adjust them manually.
  Focus: (➜ 40); White Balance: (➜ 86, 88)

1 Set the [POWER] Switch to [ON].
The [CAMERA] Lamp lights. ❷

2 Press the Start/Stop Button.
Recording starts.
The [RECORD] Indication appears briefly and then changes to [REC]. ❸

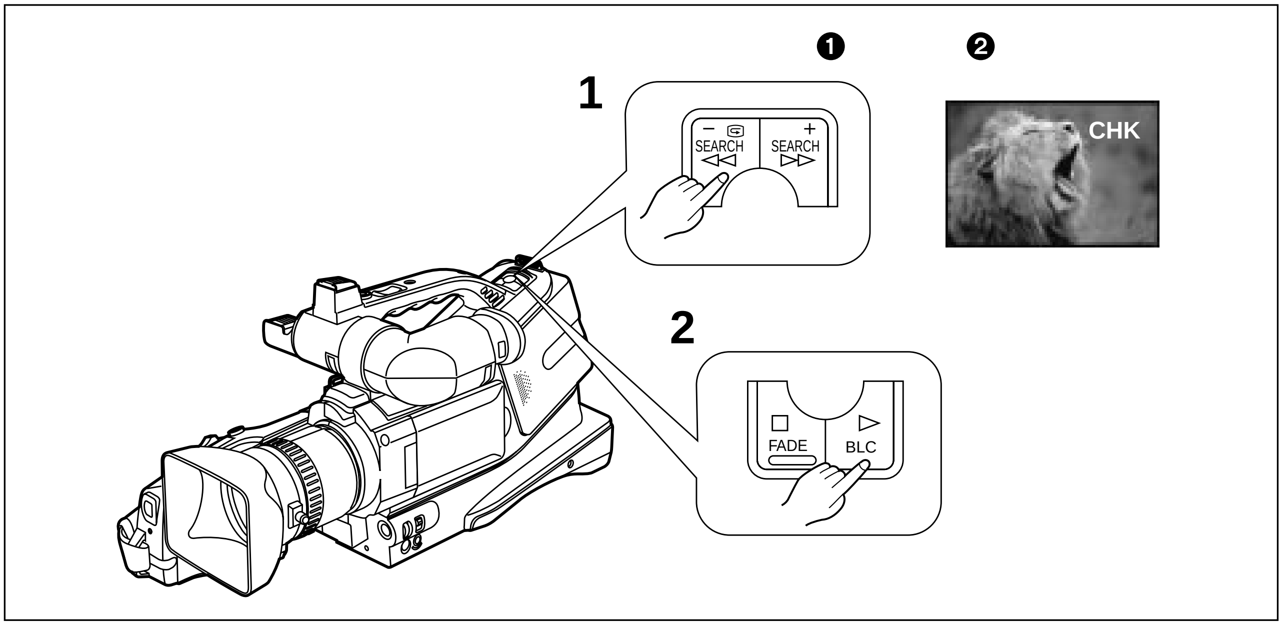
3 To pause recording: Press the Start/Stop Button again.
The [PAUSE] Indication appears. ❹

4 To finish recording: Set the [POWER] Switch to [OFF].

♦ **If you leave the Camera Recorder in the Recording Pause Mode for more than 6 minutes, it automatically switches off to protect the tape and to conserve battery power. To resume recording from this condition, set the [POWER] Switch to [OFF] and then to [ON] again.**

Recording Lamp

The Recording Lamp ❺ lights during recording to indicate that recording is being performed.
If you select [NEXT MENU] on the Menu and then set [REC LAMP] to [OFF], the Recording Lamp does not light. (➜ 122-126)



DEUTSCH

Überprüfen des Endes einer aufgenommenen Szene

(Aufnahme-Prüfung)

Zum Wiedergeben der letzten paar Sekunden einer eben aufgenommenen Szene im Aufnahmepause-Modus.

1 Im Aufnahmepause-Modus die Rückwärts-Suchlauf-Taste [◀◀] ❶ kurz drücken.

Die Anzeige [CHK] erscheint ❷.
Nach beendeter Aufnahme-Prüfung schaltet der Camerarecorder wieder auf Aufnahmepause um.

- ♦ Für die Aufnahme-Prüfung muß der Camerarecorder im gleichen Modus (SP oder LP) sein, wie bei der Aufnahme, sonst ist das Wiedergabebild gestört.

Aufnehmen von Szenen mit Gegenlicht (Gegenlicht-Kompensation)

Zum Verhindern, daß der Bildgegenstand aufgrund von Gegenlicht zu dunkel aufgenommen wird.
(Wenn sich der Bildgegenstand zwischen dem Camerarecorder und einer starken Lichtquelle befindet, nennt man dies Gegenlicht.)

1 Die Gegenlicht-Taste [▶] gedrückt halten.

Das Gegenlicht wird so lange kompensiert, wie Sie die Taste gedrückt halten, und der Bildgegenstand wird dadurch heller aufgezeichnet. (Das gesamte Bild wird heller.)

Zurückschalten auf normale Aufnahme
Die Gegenlicht-Taste [▶] loslassen.

ENGLISH

Checking If the Picture Is Recorded

(Recording Check)

To play back the final few seconds of the last recorded scene in the Recording Pause Mode.

1 Press the Reverse Search Button [◀◀] ❶ briefly in the Recording Pause Mode.

The [CHK] Indication ❷ appears.
After checking, the Camera Recorder returns to the Recording Pause Mode.

- ♦ For Recording Check, the Camera Recorder must be in the same mode (SP or LP) as used for recording, otherwise the playback picture is distorted.

Recording Backlit Scenes

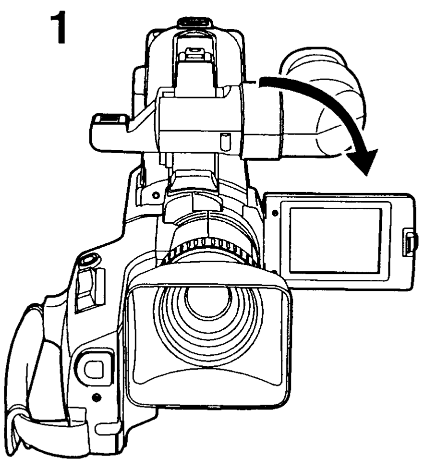
(Backlight Compensation)

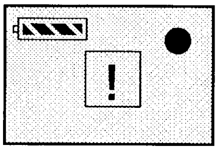
To prevent the backlit subject from being recorded very dark.
(Backlight means that the light falls on the subject from behind, i.e. the subject is between the light source and the Camera Recorder.)

1 Keep the Backlight Button [▶] pressed.

The backlight is being compensated as long as you keep the Button pressed, and the subject is recorded more brightly. (The picture brightens up as a whole.)

Returning to Normal Recording
Release the Backlight Button [▶].





DEUTSCH

Sich selbst aufnehmen

(Aufnehmen mit nach vorne gerichtetem LCD-Monitor)

Dies ermöglicht es Ihnen, sich selbst aufzunehmen, während Sie das Bild auf dem LCD-Monitor betrachten, oder den Personen vor dem Camerarecorder das Bild zu zeigen, das aufgenommen wird.

1 Den LCD-Monitor öffnen und so drehen, daß der Bildschirm nach vorne (Objektivseite) gerichtet ist.

Beim Öffnen des LCD-Monitors schaltet sich der Sucher automatisch aus. Wenn Sie den LCD-Monitor jedoch nach vorne richten, erscheint das Bild auch im Sucher.

Auf diese Weise können Sie beim Aufnehmen das Bild im Sucher betrachten, während die Personen vor dem Camerarecorder das Bild auf dem LCD-Monitor prüfen können.

Spiegelbild-Modus

Wenn Sie sich selbst mit nach vorne gerichtetem LCD-Monitor aufnehmen, ist das Bild auf dem Bildschirm seitenrichtig (so wie es aufgenommen wird), und Sie können dies u. U. als ungewöhnlich empfinden. Wenn Sie es vorziehen, Ihr Gesicht als Spiegelbild zu sehen, können Sie aufden Spiegelbild-Modus umschalten: Dazu [NEXT MENU] im Menü wählen und dann [SELFSHOOT] auf [MIRROR] einstellen. Das Bild auf dem LCD-Monitor ist jetzt ein Spiegelbild. (➔ 122-126) Das Bild wird dabei trotzdem seitenrichtig aufgezeichnet.

♦ Im Spiegelbild-Modus werden nur die folgenden Anzeigen angezeigt:

●:	Aufnahme
●❙❙:	Aufnahmepause
▭:	Akkuspannung

Wenn die allgemeine Warn-/Alarm-Anzeige [!] erscheint, sollten Sie den LCD-Monitor nach hinten richten, damit Sie die effektive Warn-/Alarm-Anzeige überprüfen können.

ENGLISH

Recording Yourself

(Recording with the LCD Monitor Facing Forward)

This makes it possible to record yourself while viewing the picture on the LCD Monitor or to show the persons in front of the Camera Recorder the picture being recorded.

1 Open the LCD Monitor and turn it so that it faces forward (lens side).

Opening the LCD Monitor automatically turns off the Finder. However, when you turn the LCD Monitor forward, the picture also appears in the Finder.

This lets you aim the Camera Recorder and view the picture in the Finder, while the persons in front of the Camera Recorder can check the picture on the LCD Monitor during recording.

Mirror Mode

When recording yourself with the LCD Monitor facing forward, the picture as it is being recorded might look unusual to you. If you prefer seeing yourself on the LCD Monitor the way you see yourself in a mirror, select the Mirror Mode:

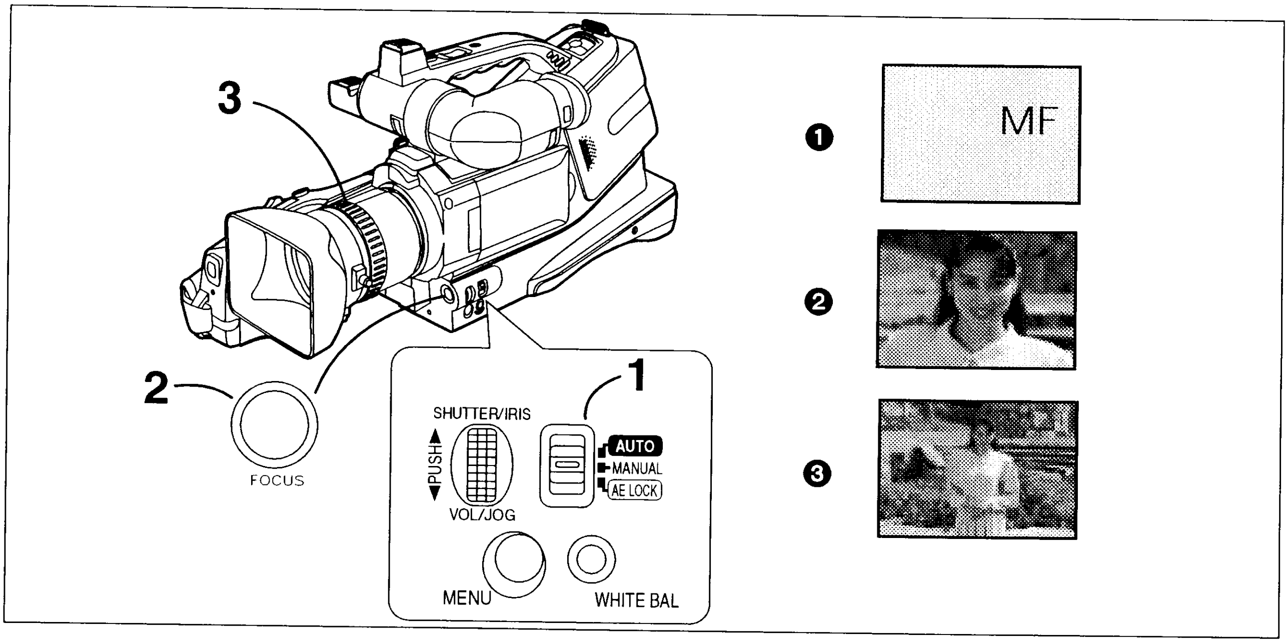
Selecting [NEXT MENU] on the Menu and then setting [SELFSHOOT] to [MIRROR] reverses the picture on the LCD Monitor and shows it as a mirror-image. (➔ 122-126)

However, even if you have selected the Mirror Mode, the picture is recorded in the normal way.

♦ In the Mirror Mode, only the following indications are displayed.

●:	Recording
●❙❙:	Recording Pause
▭:	Remaining Battery Power

When the General Warning/Alarm Indication [!] appears, turn the LCD Monitor backward so that you can confirm the actual Warning/Alarm Indication.



DEUTSCH

Manuelle Scharfeinstellung des Bildgegenstands

(Manuelle Scharfeinstellung)

Dies ermöglicht das manuelle Durchführen der Scharfeinstellung für Motive und Aufnahmesituationen, bei welchen die automatische Scharfeinstellung nicht präzise funktioniert.

1. **Den Modus-Wahlschalter auf [MANUAL] einstellen.**
   Die Anzeige [MNL] erscheint.

2. **Die Taste [FOCUS] drücken, so daß die Anzeige [MF] ❶ erscheint.**

3. **Den Scharfeinstellring am Objektiv drehen, bis der Bildgegenstand scharf ist.**

Zurückschalten auf automatische Scharfeinstellung

Die Taste [FOCUS] so lange gedrückt halten, bis die Anzeige [MF] verschwindet.

Tip für die manuelle Scharfeinstellung

- Wenn Sie die Scharfeinstellung in der Weitwinkel-Einstellung des Objektivs durchführen, ist der Bildgegenstand nach dem Heranzoomen u. U. nicht mehr scharf. Um dies zu vermeiden empfiehlt es sich, zuerst den Bildgegenstand bildfüllend heranzuzoomen ❷, bevor Sie auf ihn scharf einstellen, damit er auch beim späteren Zurückoomen immer scharf bleibt ❸.

ENGLISH

Manually Focusing on the Subject

(Manual Focus)

This makes it possible to adjust the focus manually for subjects and recording situations for which automatic focusing is not precise.

1. **Set the Mode Selector to [MANUAL].**
   The [MNL] Indication appers.

2. **Press the [FOCUS] Button to make the [MF] Indication ❶ appear.**

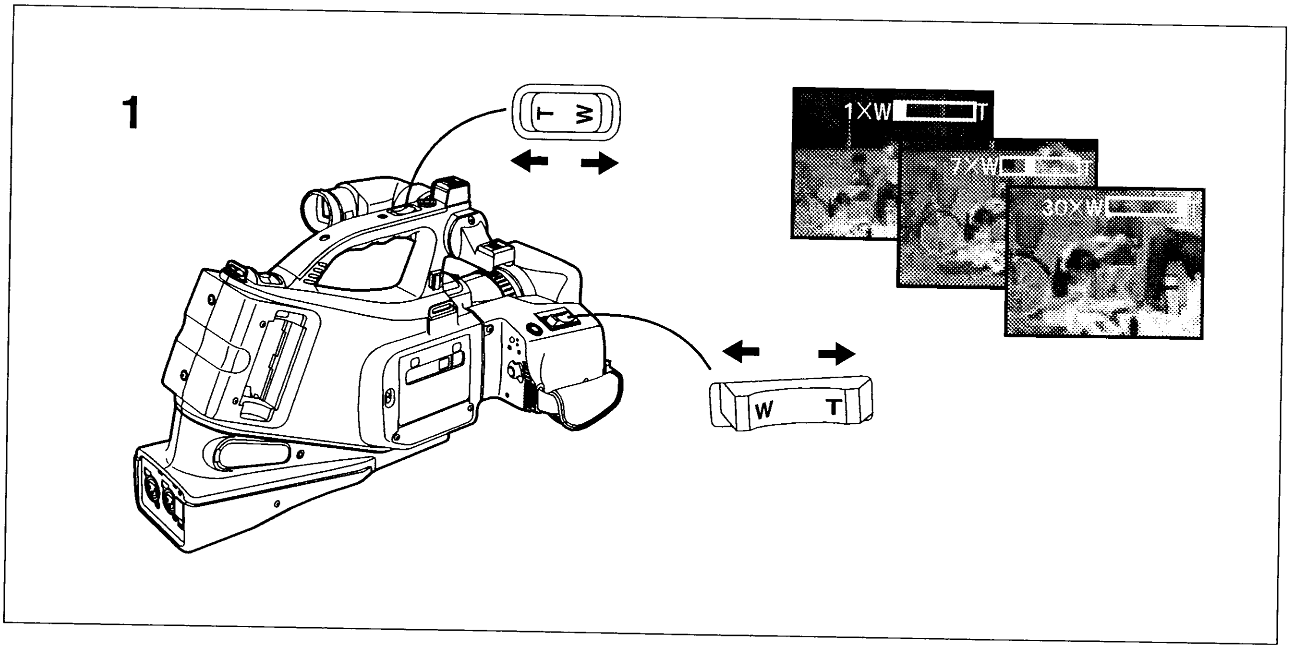
3. **Turn the Focus Ring on the Lens to adjust the focus.**

Changing Back to Automatic Focusing

Keep the [FOCUS] Button pressed until the [MF] Indication disappears.

Hint for Manual Focus Adjustment

- If you adjust the focus in the wide-angle setting, the subject may go out of focus when you enlarge it. Therefore, enlarge the subject ❷ before you adjust the focus, so that the picture remains focused when you zoom out ❸.



DEUTSCH

Den Bildgegenstand oder den Aufnahmewinkel vergrößern

(Heran- und Zurückzoomen)

Mit Großaufnahmen von Personen und Gegenständen sowie mit Weitwinkel-Aufnahmen von Gruppen und Landschaften geben Sie Ihren Videofilmen besondere Wirkung.

Der Zoomhebel befindet sich am Griff und dem Halter.

1 Um den Bildausschnitt zu verbreitern (Zurückzoomen):
Den Zoomhebel [W/T] gegen [W] drücken.
Um den Bildgegenstand zu vergrößern (Heranzoomen):
Den Zoomhebel [W/T] gegen [T] drücken.

- Beim Griffzoom nimmt die Zoomgeschwindigkeit zu, indem der W/T-Hebel in der T-Richtung gedrückt wird. Am Handgriff können drei verschiedene Geschwindigkeiten gewählt werden.
- Je weiter Sie den Zoomhebel [W/T] gegen [W] oder [T] drücken, desto höher ist die Zoomgeschwindigkeit.
- ♦ Während des Aufnehmens ist die Zoomgeschwindigkeit langsamer als im Aufnahmepause-Modus.

Noch stärkeres Vergrößern des Bildgegenstandes (Digital-Zoom)

Durch Wahl einer der beiden Einstellungen für [D.ZOOM] im Menü können Sie den Bildgegenstand noch weiter vergrößern. (➔ 122, 124)

- **24**×: Digitales Zoomen bis 24fach
- **120**×: Digitales Zoomen bis 120fach
- Bis 12fach erfolgt das Zoomen auf optische Weise.
- ♦ Je höher der Vergrößerungsgrad ist, desto niedriger ist die Bildqualität.
- ♦ Wenn Sie [D.ZOOM] im Menü auf [24×] oder [120×] einstellen, erscheint die Anzeige [D.ZOOM].

Aufnehmen von extrem kleinen Gegenständen in Großaufnahme (Makro-Nahaufnahme)

Wenn die Zoomeinstellung 1× beträgt, kann der Camerarecorder bis auf eine Mindestentfernung von ca. 30 mm zwischen Objektiv und Bildgegenstand scharf einstellen. Dies ermöglicht Großaufnahmen von Insekten, Blumen und anderen kleinen Bildgegenständen.

- Wenn Sie auf Tele-Einstellung zoomen, kann der Camerarecorder nur auf Gegenstände scharf einstellen, die mindestens 1,2 Meter entfernt sind.

ENGLISH

Enlarging Your Subject or Widening the Recording Angle

(Zooming In/Out)

Recording close-ups of your subjects and recording wide-angle shots adds special effects to your videos.

Zoom lever is located at the grip and the handle.

1 To record a wider view (Zooming-out):
Push the [W/T] Zoom Lever toward [W].
To enlarge your subject (Zooming-in):
Push the [W/T] Zoom Lever toward [T].

- The Zoom Magnification Indication appears for a few seconds.
- In grip zoom, the zoom speed is increased with the W/T Lever pressed in the direction of T.
  In hand grip, three different speeds can be selected by the [ZOOM SPEED] Switch.
- ♦ During recording, the zooming speed is slower than during recording pause.

Enlarging Your Subjects Even More (Digital Zooming)

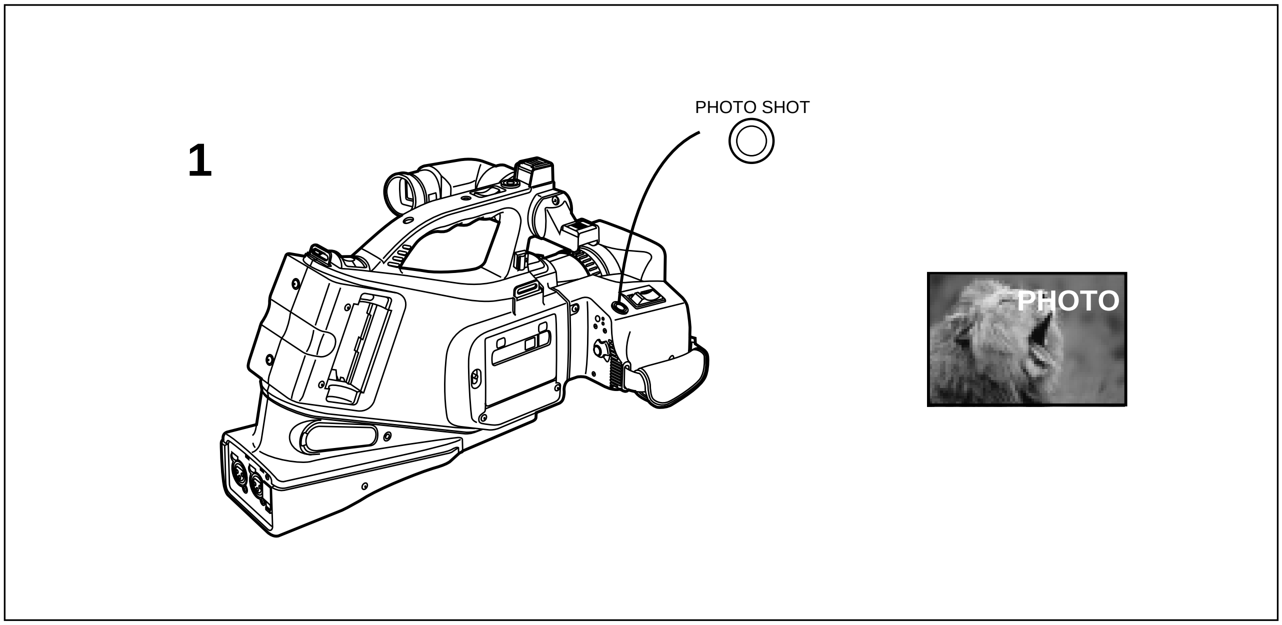
Selecting one of the two settings for [D.ZOOM] on the Menu makes it possible to further enlarge the subject. (➔ 122, 124)

- **24**×: Digital zooming up to 24×.
- **120**×: Digital zooming up to 120×.
- Up to 12×, the zooming is done optically.
- ♦ The higher the Digital Zoom Magnification is, the lower is the picture quality.
- ♦ If you set [D.ZOOM] on the Menu to [24×] or [120×], the [D.ZOOM] Indication appears.

Recording Extra Close-up Shots of Small Subjects (Macro Close-up Function)

When the zoom magnification is 1×, the Camera Recorder can focus on subjects down to a distance of approximately 30 mm between lens and subject. This allows recording very small subjects such as insects.

- When you have zoomed to the tele setting, precise focusing is only possible on subjects no closer than 1.2 metres.



DEUTSCH

Benutzen des Camerarecorders als Digital-Fotokamera (Photoshot)

Mit dieser Funktion können Sie Standbilder je 7 Sekunden lang zusammen mit laufendem Ton aufnehmen.
Dies ist beispielsweise praktisch für Bilder, die Sie auf einem Video-Drucker drucken möchten.

1 Die Taste [PHOTO SHOT] drücken. (Diese Funktion kann auch während einer laufenden Aufnahme ausgelöst werden.)

Der Camerarecorder nimmt ein Standbild ca. 7 Sekunden lang auf und schaltet dann auf Aufnahmepause um.

- ● Das Bild auf dem LCD-Monitor oder im Sucher steht ebenfalls still.
  Wenn Sie [NEXT MENU] im Menü wählen und dann [SHTR EFFECT] auf [ON] einstellen, blinkt der Bildschirm kurz, und ein simuliertes Verschluß-Klickgeräusch ist hörbar, wenn Sie die Taste [PHOTO SHOT] drücken.
- ● Mit den Standbildern, die Sie im Photoshot-Modus aufgenommen haben, können Sie folgendes durchführen:
  - Index-Suchlauf (➜ 66)
    (Ganz nahe am Bandanfang aufgenommene Bilder lassen sich damit u. U. nicht finden.)
- ♦ Wenn Sie [NEXT MENU] im Menü wählen und dann [SHTR EFFECT] auf [ON] einstellen, werden der visuelle Verschlußeffekt und das Verschlußgeräusch ebenfalls mit aufgezeichnet. (Der effektive Aufnahmestart erfolgt mit geringfügiger Verzögerung nach Drücken der Taste [PHOTO SHOT]. Der visuelle Verschlußeffekt und das Klickgeräusch können u. U. mit geringer Verzögerung nach Aufnahmebeginn auftreten.)
- ♦ Die Bildqualität ist etwas schlechter.
- ♦ Beim Einsatz der Photoshot-Funktion verschwindet die Bandrestzeit-Anzeige. Beim erneuten Starten der normalen Aufnahme erscheint die Bandrestzeit-Anzeige wieder.

ENGLISH

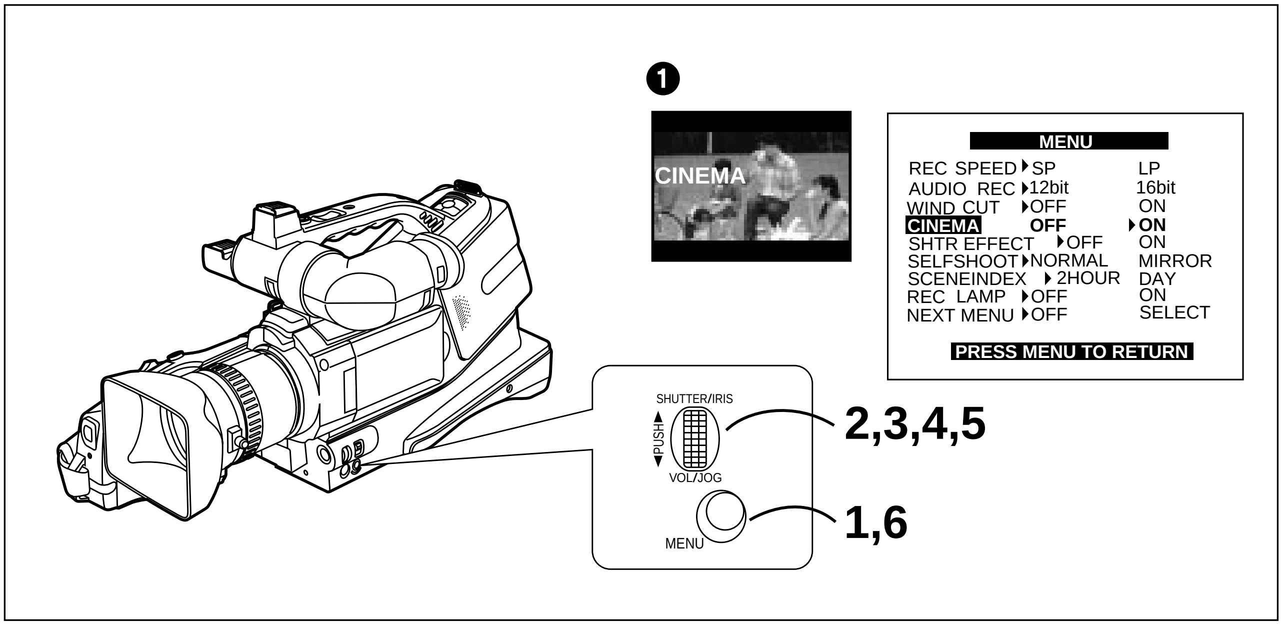
Using the Camera Recorder as a Digital Still Camera (Photoshot)

With this function, you can record still pictures with sound for approximately 7 seconds each.
This function is convenient for example for pictures that you want to print on a Video Printer.

1 Press the [PHOTO SHOT] Button. (This function can be used during recording, too.)

The Camera Recorder records a still picture for approximately 7 seconds and then switches over to the Recording Pause Mode.

- ● The image on the LCD Monitor or in the Finder also stands still.
  If you select [NEXT MENU] on the Menu and set [SHTR EFFECT] to [ON], the screen blinks briefly and a simulated shutter click sound can be heard when you press the [PHOTO SHOT] Button.
- ● With the still pictures that you have recorded in the Photoshot Mode, you can do the following:
  - Index Search (➜ 66)
    (However, searching for the picture(s) recorded at the beginning of the tape may not be possible.)
- ♦ If you select [NEXT MENU] on the Menu and set [SHTR EFFECT] to [ON], the visual shutter effect and the click sound are also recorded. (There is a slight delay between pressing the [PHOTO SHOT] Button and the actual start of recording. The visual shutter effect and click sound may occur with slight delay after recording of the still picture has started.)
- ♦ The picture quality deteriorates slightly.
- ♦ Using the Photoshot Function makes the Remaining Tape Time Indication disappear. Resuming normal recording makes the Remaining Tape Time Indication appear again.


❶
CINEMA
MENU
REC SPEED ▸SP LP
AUDIO REC ▸12bit 16bit
WIND CUT ▸OFF ON
CINEMA OFF ▸ON
SHTR EFFECT ▸OFF ON
SELFSHOOT ▸NORMAL MIRROR
SCENEINDEX ▸2HOUR DAY
REC LAMP ▸OFF ON
NEXT MENU ▸OFF SELECT
PRESS MENU TO RETURN
SHUTTER/IRIS
PUSH
VOL/JOG
MENU
2,3,4,5
1,6

DEUTSCH

Aufnehmen im Kinoformat-Modus

(Kinoformat-Modus)

Dieser Modus ermöglicht das Aufnehmen in einem kinobildschirm-ähnlichen Breitbild-Format.

1. **Die Taste [MENU] drücken.**
   Das Menü erscheint.
2. **Den Regler [PUSH] drehen, um [NEXT MENU] zu wählen.**
3. **Den Regler [PUSH] drücken, um [SELECT] zu wählen.**
4. **Den Regler [PUSH] drehen, um [CINEMA] zu wählen.**
5. **Den Regler [PUSH] drücken, um [ON] zu wählen.**
6. **Die Taste [MENU] zweimal drücken, um das Menü auszublenden.**

- ♦ Im Kinoformat-Modus erscheinen schwarze Balken am oberen und unteren Bildrand auf dem LCD-Monitor und Sucherbildschirm. ❶

Ausschalten des Kinoformat-Modus

[CINEMA] auf dem Menü auf [OFF] stellen.

ENGLISH

Recording in the Cinema Mode

(Cinema Mode)

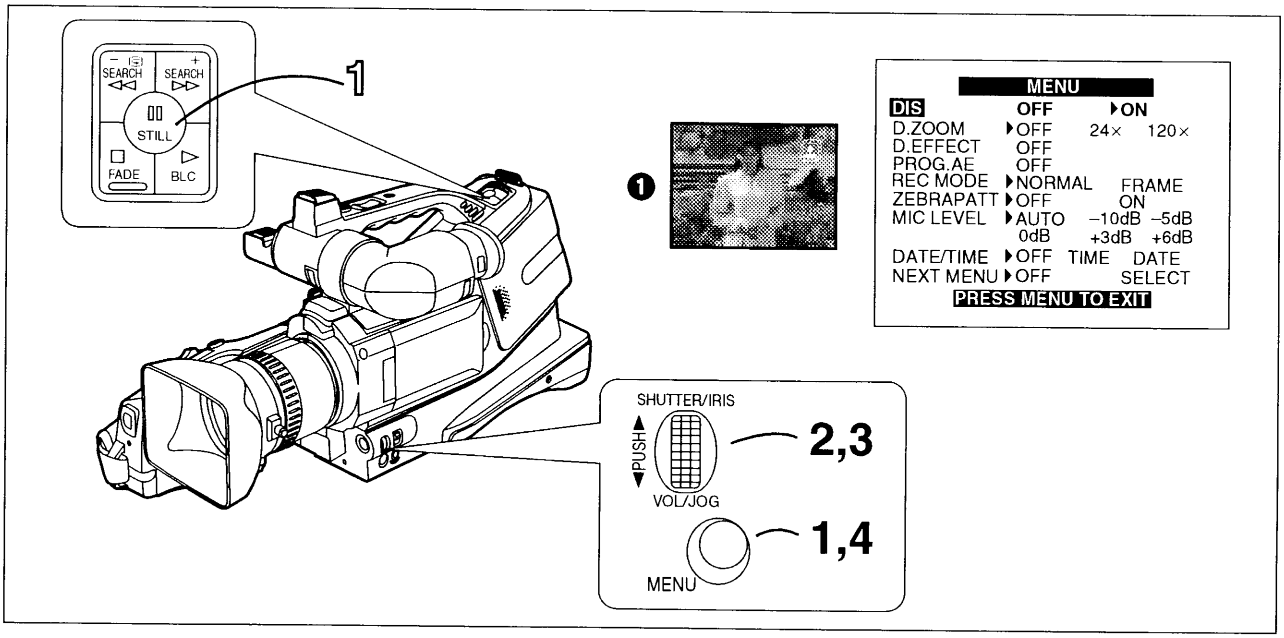
This mode lets you record in the cinema-like wide-screen format.

1. **Press the [MENU] Button.**
   The Menu appears.
2. **Turn the [PUSH] Dial to select [NEXT MENU].**
3. **Press the [PUSH] Dial to select [SELECT].**
4. **Turn the [PUSH] Dial to select [CINEMA].**
5. **Press the [PUSH] Dial to select [ON].**
6. **Press the [MENU] Button twice to exit the Menu.**

- ♦ In the Cinema Mode, black bars appear at the top and bottom of the LCD Monitor and the Finder screen. ❶

Cancelling the Cinema Mode

Set [CINEMA] on the Menu to [OFF].



```
            MENU
DIS           OFF     ▸ON
D.ZOOM      ▸OFF     24×    120×
D.EFFECT      OFF
PROG.AE       OFF
REC MODE    ▸NORMAL     FRAME
ZEBRAPATT   ▸OFF         ON
MIC LEVEL   ▸AUTO    −10dB  -5dB
               0dB   +3dB  +6dB
DATE/TIME   ▸OFF  TIME   DATE
NEXT MENU   ▸OFF        SELECT
       PRESS MENU TO EXIT
```

DEUTSCH

Aufnehmen mit minimiertem Verwackeln (Digital-Bildstabilisator)

In Aufnahmesituationen, wo Kamerawackeln oft auftritt, beispielsweise bei Tele-Aufnahmen oder beim Aufnehmen im Gehen, können Sie mit dieser Funktion das Bild stabilisieren.

- ♦ Bei extrem starkem Kamerawackeln läßt sich das Bild u. U. nicht stabilisieren.

1 Die Taste [MENU] drücken.
Das Menü erscheint.

2 Den Regler [PUSH] drehen, um [DIS] zu wählen.

3 Den Regler [PUSH] drücken, um [ON] zu wählen.

4 Die Taste [MENU] drücken, um das Menü auszublenden.
Die Anzeige [⊡] ❶ erscheint.

- ♦ An einem dunklen Ort funktioniert die Digital-Bildstabilisator-Funktion u. U. nicht. In diesem Fall blinkt die Anzeige [⊡].
- ♦ Unter Leuchtstofflampen-Beleuchtung schwankt die Bildhelligkeit u. U., und die Farben sind möglicherweise unnatürlich.
- ♦ Die Bildqualität verschlechtert sich u. U. geringfügig.
- ♦ Der Bildgegenstand erscheint etwas vergrößert im Bild.
- ● Beim Einsatz eines Stativs, empfiehlt es sich, [DIS] auf [OFF] einzustellen.

Ausschalten der Digital-Bildstabilisator-Funktion

[DIS] im Menü auf [OFF] stellen.

Aufnehmen von Standbildern

Mit dieser Funktion können Sie Standbilder von beliebiger Dauer zusammen mit laufendem Ton entweder während einer normalen Aufnahme oder aus dem Aufnahmepause-Modus aufnehmen.

1 Die Standbild-Taste [❚❚] drücken.

Ausschalten der Standbild-Aufnahmefunktion

Die Standbild-Taste [❚❚] erneut drücken.

ENGLISH

Recording with Minimised Camera Shake (Digital Image Stabilizer)

In recording situations where shaking of the Camera Recorder is likely to happen, for example when you have zoomed in on a distant subject or when you record while walking, you can use this function to stabilize the image.

- ♦ In case of very strong camera shake, it may not be possible to stabilize the picture.

1 Press the [MENU] Button.
The Menu appears.

2 Turn the [PUSH] Dial to select [DIS].

3 Press the [PUSH] Dial to select [ON].

4 Press the [MENU] Button to exit the Menu.
The [⊡] Indication ❶ appears.

- ♦ In a dimly lit place, the Digital Image Stabilizer Function may not work. In this case, the [⊡] Indication flashes.
- ♦ Under fluorescent lamps, the picture brightness may fluctuate and the colours may be unnatural.
- ♦ The picture quality may deteriorate slightly.
- ♦ The subject becomes slightly enlarged.
- ● When you use a tripod, we recommend that you set [DIS] to [OFF].

Cancelling the Digital Image Stabilizer Function

Set [DIS] on the Menu to [OFF].

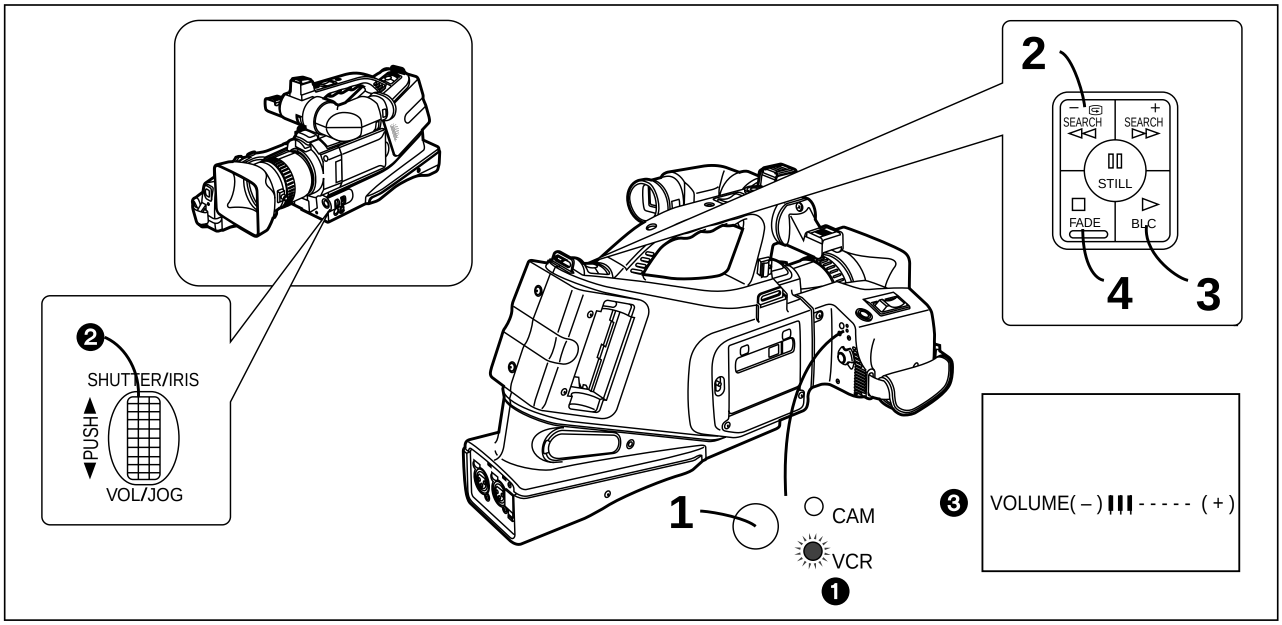
Recording Still Pictures

You can record still pictures of any desired duration together with sound either in the middle of a normal recording or from the Recording Pause Mode.

1 Press the Still Button [❚❚].

Cancelling the Still Picture Recording Mode

Press the Still Button [❚❚] again.



DEUTSCH

Betrachten der soeben aufgenommenen Szenen auf dem Camerarecorder (Wiedergabe)

Sie können aufgezeichnete Szenen sofort nach dem Aufnehmen wiedergeben.

1. **Die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] ❶ aufleuchtet.**
2. **Die Rückspultaste [◀◀] drücken, um das Band zurückzuspulen.**
   - Das Band bis zu der Bandstelle zurückspulen, an der Sie mit dem Aufnehmen begannen.
   - Am Bandanfang wird das Rückspulen automatisch gestoppt.
   - Der Kurzvorlauf (FF) ist etwas kürzer als der Standardvorlauf, was jedoch normal ist.
3. **Die Wiedergabe-Taste [▶] drücken, um die Wiedergabe zu starten.**
4. **Zum Stoppen der Wiedergabe:**
   Die Stopp-Taste [■] drücken.

■ Aussteuern des Tonaufnahmepegels

Den Regler [PUSH] ❷ so lange gedrückt halten, bis die Anzeige [VOLUME] ❸ erscheint. Anschließend den Regler [PUSH] drehen, um den Tonaufnahmepegel zu regeln.

Um die Anzeige [VOLUME] auszublenden, den Regler [PUSH] so lange gedrückt halten, bis die Anzeige [VOLUME] verschwunden ist.

Einblenden der Datum-/Uhrzeit-Anzeige

Dieser Camerarecorder zeichnet das Aufnahmedatum und die Uhrzeit automatisch als Teil des Zusatzcodes (➜ 148), d. h. nicht direkt im Bild, auf.

Um die Datum-/Uhrzeit-Anzeige einzublenden, [DATE/TIME] im Menü auf die gewünschte Anzeige einstellen.

ENGLISH

Viewing the Just Recorded Scenes on the Camera Recorder (Playback)

You can play back recorded scenes right after recording.

1. **Press the [VCR/CAMERA] Button so that the [VCR] Lamp ❶ lights.**
2. **Press the Rewind Button [◀◀] to rewind the tape.**
   - Rewind the tape to the point where the recording started.
   - If the tape reaches the beginning, rewinding automatically stops.
   - The short FF is a little shorter than standard; however, this is normal.
3. **Press the Play Button [▶] to start playback.**
4. **To stop playback:**
   Press the Stop Button [■].

■ Adjusting the Sound Volume

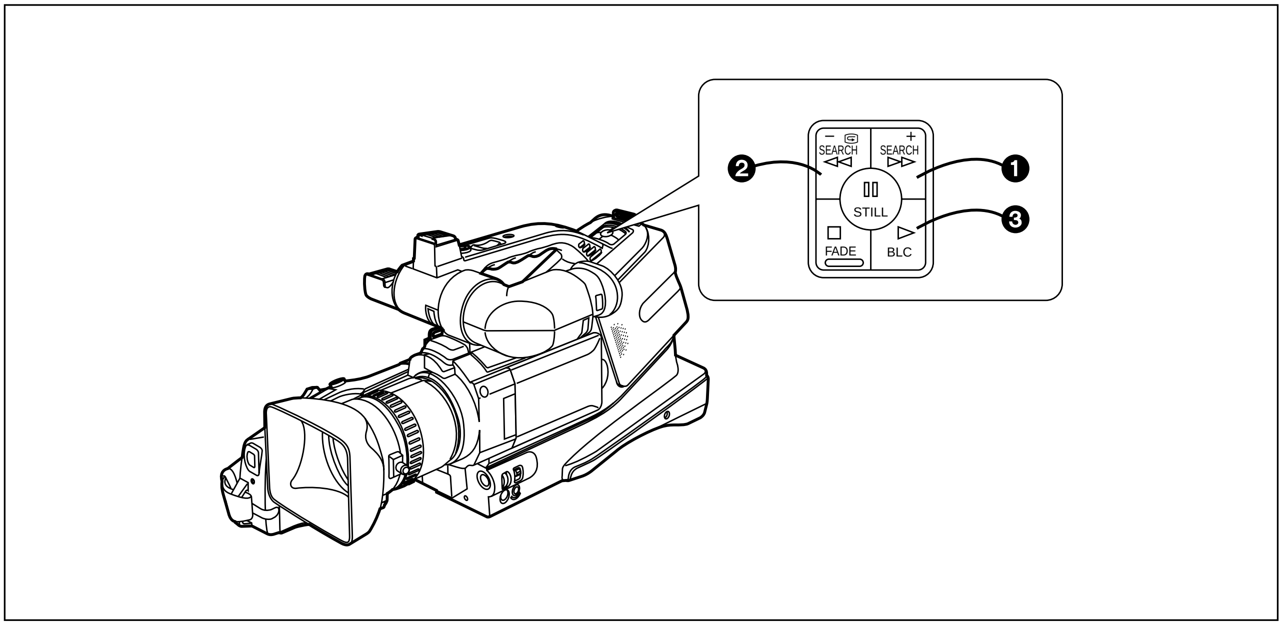
Keep the [PUSH] Dial ❷ pressed until the [VOLUME] Indication ❸ appears. Then, turn the [PUSH] Dial to adjust the volume.

To make the [VOLUME] Indication disappear, press the [PUSH] Dial again until the [VOLUME] Indication has disappeard.

Making the Date/Time Indication Appear

This Camera Recorder automatically records the date and time, however not directly in the picture but as part of the sub code (➜ 148).

To make the Date/Time Indication appear, set [DATE/TIME] on the Menu to the desired setting.



DEUTSCH

Auffinden einer gewünschten Szene für die Wiedergabe

Bildsuchlauf vorwärts (Cue)

Die Vorwärts-Suchlauf-Taste [▶▶] ❶ während der Wiedergabe gedrückt halten.

Bildsuchlauf rückwärts (Review)

Die Rückwärts-Suchlauf-Taste [◀◀] ❷ während der Wiedergabe gedrückt halten.

Suchlauf-Verriegelungs-Funktion

Für längeren Bildsuchlauf vorwärts (Cue) oder rückwärts (Review) die Vorwärts-Suchlauf-Taste [▶▶] bzw. die Rückwärts-Suchlauf-Taste [◀◀] nur kurz drücken. Dadurch wird die entsprechende Funktion verriegelt, und die Taste muß nicht dauernd gedrückt gehalten werden.

- Zum Zurückschalten auf normale Wiedergabe, die Wiedergabe-Taste [▶] ❸ drücken.
- Beim Bildsuchlauf vorwärts (Cue) und rückwärts (Review) können Bilder mit schnellen Bewegungen mosaikartige Muster enthalten.

Hyper-Check-Funktion

- Wenn Sie während dem Vorspulen die Vorspultaste [▶▶] oder während dem Rückspulen die Rückspultaste [◀◀] drücken, schaltet der Camerarecorder so lange auf Bildsuchlauf vorwärts (Cue) bzw. Bildsuchlauf rückwärts (Review) um, wie Sie die Taste gedrückt halten.

♦ Am Anfang und Ende des Bildsuchlaufs vorwärts oder rückwärts treten u. U. vorübergehend Bildstörungen auf.

ENGLISH

Searching for a Scene You Want to Play Back

Cue Playback

Keep the Cue Button [▶▶] ❶ pressed during playback.

Review Playback

Keep the Review Button [◀◀] ❷ pressed during playback.

Search Lock Function

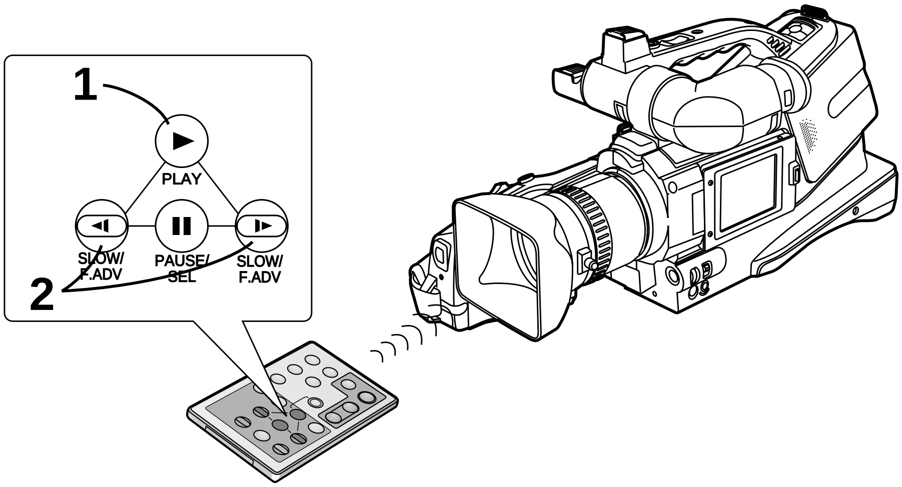
For longer Cue or Review Playback, press the Cue Button [▶▶] or the Review Button [◀◀] only briefly. As this locks the search function, you do not need to keep the button pressed for a long time.

- To resume normal playback, press the Play Button [▶]. ❸
- In Cue and Review Playback, pictures with fast-moving subjects may contain mosaic-like patterns.

Hyper Check Function

- If you press the Fast-forward Button [▶▶] during fast-forwarding of the tape or the Rewind Button [◀◀] during rewinding of the tape, Cue Playback or Review Playback continues for as long as you keep the Button pressed.

♦ Before and after activating Cue Playback or Review Playback, the picture may momentarily be distorted.



DEUTSCH

Wiedergabe in Zeitlupe

(Zeitlupen-Wiedergabe)

1 Die Wiedergabe-Taste [▶] drücken.

2 Die Zeitlupen-/Einzelbild-Taste [◄❚] oder [❚►] auf der Fernbedienung drücken.

Beim Drücken der Taste [◄❚] erfolgt die Zeitlupen-Wiedergabe in Rückwärtsrichtung und beim Drücken der Taste [❚►] in Vorwärtsrichtung.

Im SP-Modus aufgenommene Szenen werden mit ca. 1/5 der Normalgeschwindigkeit wiedergegeben.
Im LP-Modus aufgenommene Szenen werden mit ca. 1/3 der Normalgeschwindigkeit wiedergegeben.

Zurückschalten auf normale Wiedergabe

Die Wiedergabe-Taste [▶] drücken.
Die Wiedergabe wird mit Normalgeschwindigkeit fortgesetzt.

- Während der Zeitlupen-Wiedergabe in Rückwärtsrichtung ist die Timecode-Anzeige u. U. nicht präzise.

ENGLISH

Playing Back in Slow Motion

(Slow Motion Playback)

1 Press the Play Button [▶].

2 Press the Slow Motion/Frame Advance Button [◄❚] or [❚►] on the Remote Controller.

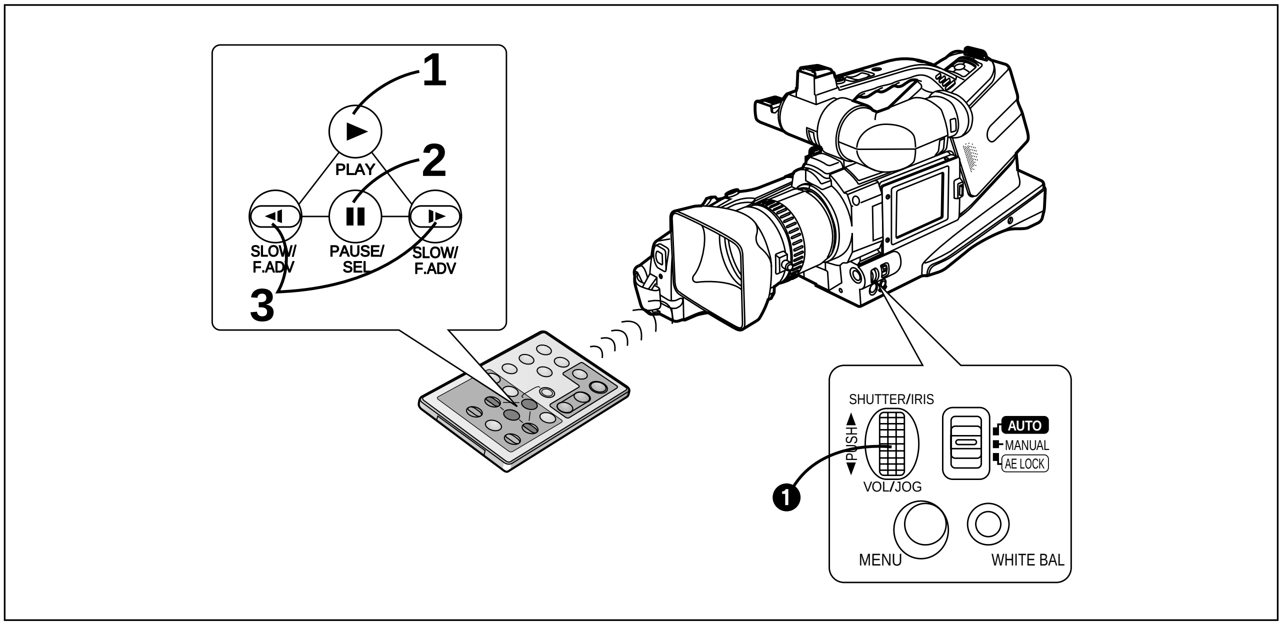
Pressing the [◄❚] Button starts slow motion playback in reverse direction, and pressing the [❚►] Button starts slow motion playback in forward direction.

Scenes recorded in the SP Mode are played back at approximately 1/5th of the normal speed.
Scenes recorded in the LP Mode are played back at approximately 1/3rd of the normal speed.

Resuming Normal Playback

Press the Play Button [▶].
Playback continues with normal speed.

- During slow motion playback in reverse direction, the Time Code Indication may not be accurate.



DEUTSCH

Wiedergabe von Standbildern und Einzelbild-Fortschaltung

(Standbild-/Einzelbild-Wiedergabe)

Sie können das Geschehen auf dem Bildschirm während der Wiedergabe stoppen und dann Standbilder Bild um Bild wiedergeben.

1 Die Wiedergabe-Taste [▶] drücken.

2 Die Pausentaste [❚❚] drücken.

Die Wiedergabe wird im Standbild-Modus gestoppt.

3 Die Zeitlupen-/Einzelbild-Taste [◀❚] oder [❚▶] auf der Fernbedienung drücken.

Beim Drücken der Taste [◀❚] erfolgt die Einzelbild-Wiedergabe in Rückwärtsrichtung und beim Drücken der Taste [❚▶] in Vorwärtsrichtung.

Zurückschalten auf normale Wiedergabe

Die Wiedergabe-Taste [▶] drücken.
Die Wiedergabe wird mit Normalgeschwindigkeit fortgesetzt.

- Wenn Sie während der Einzelbild-Wiedergabe die Taste [❚▶] auf der Fernbedienung länger als 1 Sekunde gedrückt halten, schaltet der Camerarecorder auf Zeitlupen-Wiedergabe mit langsamerer Geschwindigkeit als im normalen Zeitlupen-Modus um.
- ♦ Wenn Sie den Camerarecorder länger als 6 Minuten im Modus Standbild-Wiedergabe lassen, schaltet er automatisch auf den Stopp-Modus um, damit die Videoköpfe gegen übermäßige Abnutzung geschützt werden.
- ♦ Während der Einzelbild-Wiedergabe ist die Timecode-Anzeige u. U. nicht präzise.

Benutzen der Jog-Wiedergabe-Funktion

Durch Drehen des Jog-Reglers (Regler [PUSH]) ❶ am Camerarecorder im Standbild-Wiedergabe-Modus können Sie ebenfalls Einzelbild-Wiedergabe in Vorwärts- oder Rückwärtsrichtung durchführen.

ENGLISH

Playing Back Still Pictures and Advancing Them One by One

(Still Playback/Still Advance Playback)

You can freeze the action during playback and advance the still pictures one by one.

1 Press the Play Button [▶].

2 Press the Pause Button [❚❚].

The playback picture stops in the Still Playback Mode.

3 Press the Slow Motion/Frame Advance Button [◀❚] or [❚▶] on the Remote Controller.

Pressing the [◀❚] Button advances the still picture frame by frame in reverse direction. Pressing the [❚▶] Button advances the still picture frame by frame in forward direction.

Resuming Normal Playback

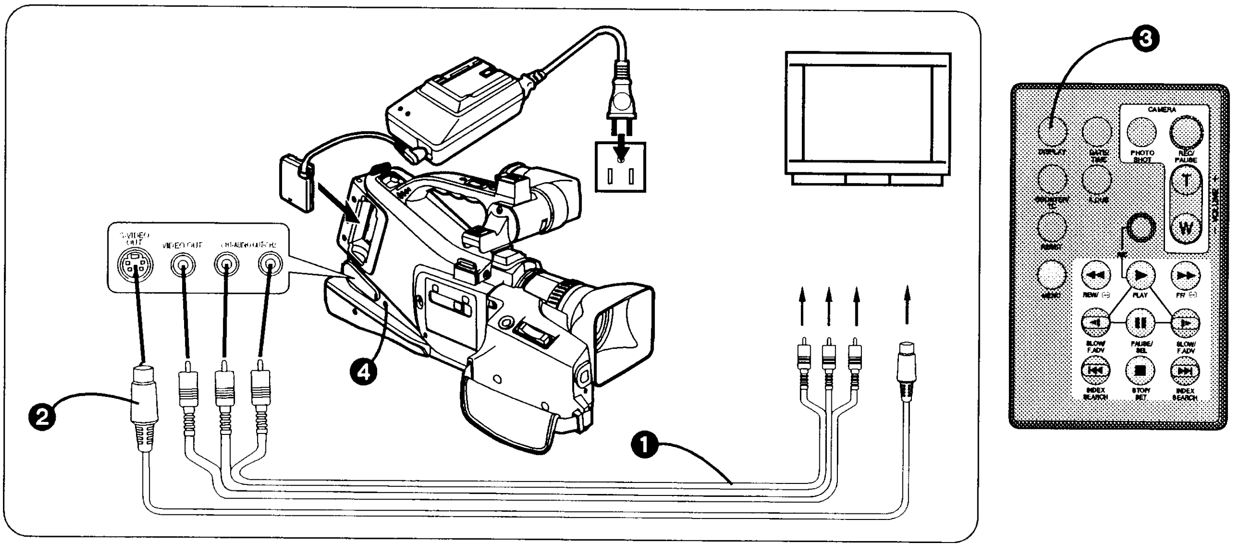
Press the Play Button [▶].
Playback continues with normal speed.

- If you keep the [❚▶] Button on the Remote Controller pressed for more than 1 second during Still Advance Playback, the Camera Recorder switches over to the Slow Motion Playback Mode with slower speed than in the normal Slow Motion Playback Mode.
- ♦ If you leave the Camera Recorder in the Still Playback Mode for more than 6 minutes, it switches over to the Stop Mode to protect the video heads against excessive wear.
- ♦ During Still Advance Playback, the Time Code Indication may not be accurate.

Using the Jog Dial (Jog Playback)

By turning the Jog Dial ([PUSH] Dial) ❶ on the Camera Recorder in the Still Playback Mode, you can advance the still pictures one by one in forward or reverse direction.

1



DEUTSCH

Wiedergabe auf einem Fernseher

1 Die Video- und Audio-Ausgangsbuchsen mit den Video- und Audio-Eingangsbuchsen am Fernsehgerät verbinden.

Das AV-Kabel ❶ für die Anschlußverbindung zum Fernsehgerät verwenden. Falls das Fernsehgerät mit einer S-Video-Buchse ausgestattet ist, auch das S-Video-Kabel ❷ anschließen.

- ♦ Vor dem Anschließen den Camerarecorder und das Fernsehgerät ausschalten.
- ♦ Bei der Wiedergabe einer Cassette, deren Aufzeichnung Kopierschutzsignale enthält, wird der Bildschirm schwarz. Die mit diesem Camerarecorder aufgezeichneten Szenen enthalten selbstverständlich keine Kopierschutzsignale.

Einblenden der Anzeigen auf dem Fernsehbildschirm

Die Taste [DISPLAY] ❸ auf der Fernbedienung drücken. Die Anzeigen des Camerarecorders erscheinen dadurch auf dem Fernsehbildschirm.

Tonwiedergabe durch einen Kopfhörer

Für die Tonwiedergabe durch einen Kopfhörer können Sie diesen an die Buchse [PHONES] ❹ anschließen. In diesem Fall wird der Ton jedoch auch durch den eingebauten Lautsprecher wiedergegeben. Um den Ton vom Lautsprecher abzuschalten, können Sie die Lautstärke ganz senken (→ 50).

ENGLISH

Playing Back on a TV

1 Connect the Video and Audio Output Sockets to the Video and Audio Input Sockets on the TV.

Use the AV Cable ❶ to connect to the TV. If your TV is equipped with an S-Video Socket, also connect the S-Video Cable ❷.

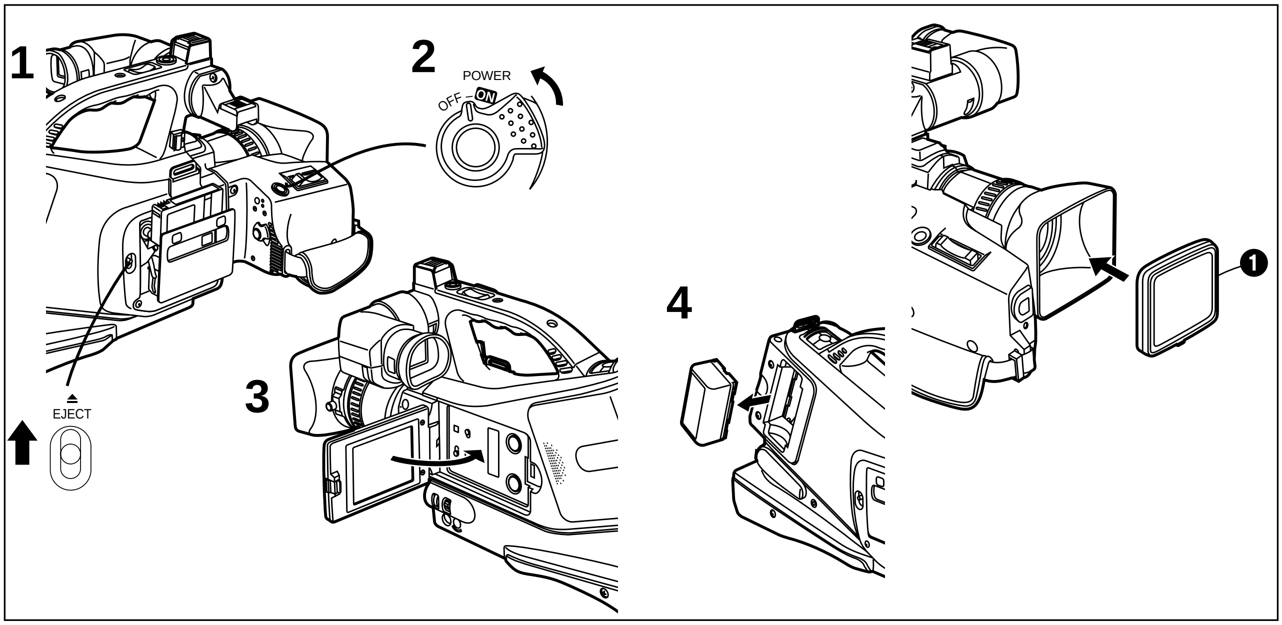
- ♦ Before connecting, turn off both the Camera Recorder and the TV.
- ♦ If a cassette recorded with copyright protection signal is played back, the screen becomes black. However, scenes recorded with this Camera Recorder do not contain a copyright protection signal.

Making the Indications Appear on the TV Screen

Press the [DISPLAY] Button ❸ on the Remote Controller. The On-Screen Indications also appear on the TV screen.

Playing Back the Sound via Headphones

Using the [PHONES] ❹ allows you to listen to the playback sound via headphones.
Even if the sound is played back via headphones, the sound from the Camera Recorder's built-in speaker can also be heard. If you want to mute the sound from the speaker, lower the volume (→ 50).



DEUTSCH

Nach dem Gebrauch

1. **Die Cassette herausnehmen. (➜ 26)**
2. **Den Schalter [POWER] auf [OFF] stellen.**
3. **Den Sucher in den Camerarecorder zurückschieben und den LCD-Monitor schließen.**
4. **Den Akku herausnehmen. (➜ 22)**

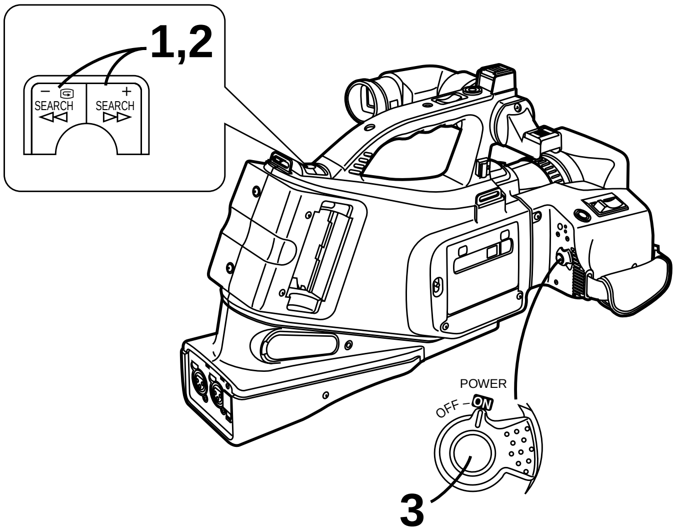
Aufsetzen des Objektivdeckels ❶
Nach dem Gebrauch immer den Objektivdeckel auf das Objektiv aufsetzen, um die Objektivlinse zu schützen.

ENGLISH

After Use

1. **Take out the cassette. (➜ 26)**
2. **Set the [POWER] Switch to [OFF].**
3. **Retract the Finder and close the LCD Monitor.**
4. **Take out the Battery. (➜ 22)**

Attaching the Lens Cap ❶
After use, attach the supplied Lens Cap to the Lens to protect it.



DEUTSCH

Betrachten der aufgenommenen Szenen während der Aufnahmepause (Kamerasuchlauf)

Wenn der Camerarecorder im Aufnahmepause-Modus ist, können Sie die aufgenommen Szenen wiedergeben. Die Kamerasuchlauf-Funktion ist praktisch zum Auffinden einer Szene, ab welcher Sie eine neue Szene mit sauberem Szenenübergang aufnehmen möchten.

1 Die Rückwärts-Suchlauf-Taste [◀◀] oder die Vorwärts-Suchlauf-Taste [▶▶] länger als 1 Sekunde gedrückt halten.
Durch Drücken der Taste [◀◀] wird das Bild in Rückwärtsrichtung wiedergegeben.
Durch Drücken der Taste [▶▶] wird das Bild in Vorwärtsrichtung wiedergegeben.

Aufnehmen ab der gewünschten Stelle

2 Die gedrückt gehaltene Taste loslassen.
Der Camerarecorder ist im Aufnahmepause-Modus.

3 Die Start-/Stopp-Taste drücken, um mit dem Aufnehmen zu beginnen.
Der Camerarecorder beginnt mit dem Aufnehmen der neuen Szene und fügt diese mit sauberem Szenenübergang an.

- Im Kamerasuchlauf-Modus enthält das Bild u. U. mosaikartige Muster. Dies ist jedoch eine systembedingte Eigenart von Digital-Video und völlig normal.

♦ Falls der Aufnahmegeschwindigkeits-Modus (SP/LP) der alten und neuen Szene nicht gleich ist, können bei der Wiedergabe Bildstörungen auftreten.

ENGLISH

Viewing Recorded Scenes During Recording Pause
(Camera Search)

You can view recorded scenes when the Camera Recorder is in the Recording Pause Mode.
The Camera Search Function is convenient to search for a scene from which you want to start recording a new scene with smooth scene-to-scene transition.

1 Keep the Reverse Search Button [◀◀] or the Forward Search Button [▶▶] pressed for more than 1 second.
Pressing the [◀◀] Button plays back the picture in reverse direction.
Pressing the [▶▶] Button plays back the picture in forward direction.

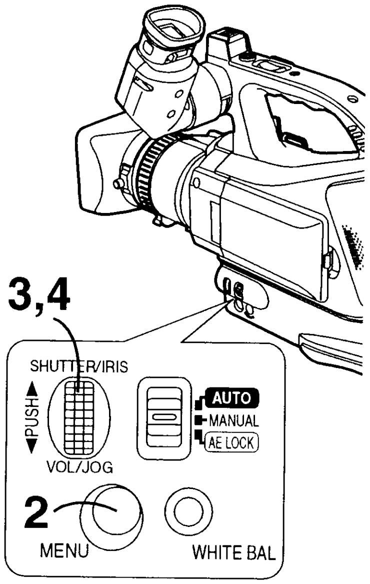
Starting to Record from the Desired Position

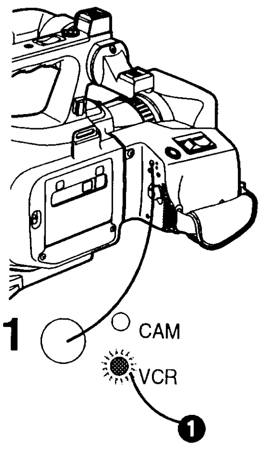
2 Release the pressed Search Button.
The Camera Recorder is in the Recording Pause Mode.

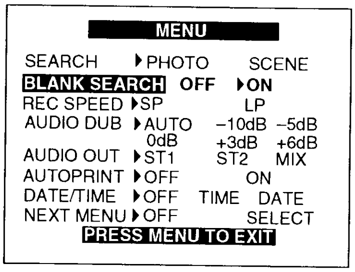
3 Press the Start/Stop Button to start recording.
The Camera Recorder starts recording a new scene with smooth scene-to-scene transition.

- In the Camera Search Mode, the picture may contain mosaic-like patterns. However, this is a phenomenon particular to digital video and completely normal.

♦ If the Recording Speed Mode (SP/LP) of the previous and the new recording are different, the playback picture may be distorted.







```
                MENU
SEARCH      ▶PHOTO      SCENE
BLANK SEARCH  OFF   ▶ON
REC SPEED  ▶SP          LP
AUDIO DUB  ▶AUTO    -10dB  -5dB
             0dB     +3dB  +6dB
AUDIO OUT  ▶ST1      ST2   MIX
AUTOPRINT  ▶OFF          ON
DATE/TIME  ▶OFF    TIME   DATE
NEXT MENU  ▶OFF        SELECT
        PRESS MENU TO EXIT
```

DEUTSCH

Auffinden des Endes des aufgezeichneten Bandabschnittes auf der Cassette (Leerstellen-Suchlauf)

Mit der Leerstellen-Suchlauf-Funktion können Sie das Ende des aufgezeichneten Bandabschnittes auf einer Cassette (oder einen aufnahmefreien Bandabschnitt zwischen Aufnahmen) schnell und bequem auffinden.

1 **Die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] ❶ aufleuchtet.**

2 **Die Taste [MENU] drücken.**
Das Menü erscheint.

3 **Den Regler [PUSH] drehen, um [BLANK SEARCH] zu wählen.**

4 **Den Regler [PUSH] drücken, um [ON] zu wählen.**
Ca. 1 Sekunde vor dem Ende der letzten aufgezeichneten Szene schaltet der Camerarecorder auf Standbild-Wiedergabe um.

- Falls sich auf der ganzen Cassette kein aufnahmefreier Bandabschnitt befindet, schaltet der Camerarecorder am Bandende auf Stopp um.
- Nach beendetem Leerstellen-Suchlauf können Sie die Taste [VCR/CAMERA] drücken, so daß die Lampe [CAMERA] aufleuchtet, und dann mit dem Aufnehmen beginnen. Die neue Szene wird mit sauberem Szenenübergang an das Ende der vorhergehenden Szene angefügt.

ENGLISH

Searching for the End of the Recorded Part on a Cassette
(Blank Search)

With the Blank Search Function, you can quickly locate the end of the recorded part on a cassette (or a blank part between recordings).

1 **Press the [VCR/CAMERA] Button so that the [VCR] Lamp lights. ❶**

2 **Press the [MENU] Button.**
The Menu appears.

3 **Turn the [PUSH] Dial to select [BLANK SEARCH].**

4 **Press the [PUSH] Dial to select [ON].**
Approximately 1 second before the end of the last recorded scene, the Camera Recorder switches over to the Still Playback Mode.

- If there is no blank part on a cassette, the Camera Recorder stops at the end of the tape.
- When the Blank Search has finished, you can press the [VCR/CAMERA] Button so that the [CAMERA] Lamp lights, and then start recording. The new scene is recorded with a smooth transition from the last to the new scene.

DEUTSCH

Auffinden des Anfangs aufgezeichneter Szenen, die mit Index-Signal markiert sind.

(Index-Suchlauf)

Index-Suchlauf

Um das Auffinden gewünschter Szenen zu vereinfachen, zeichnet dieser Camerarecorder beim Aufnehmen automatisch Index-Signale wie folgt auf:

❶ Photoshot-Index-Signal
Zum schnellen Auffinden des Anfangs von Standbildern, die im Photoshot-Modus (➜ 44) aufgezeichnet wurden.
Bei jedem Aufzeichnen eines Standbildes im Photoshot-Modus wird automatisch ein Photoshot-Index-Signal aufgezeichnet.

❷ Szenen-Index-Signal
Zum schnellen Auffinden des Anfangs von aufgezeichneten Szenen.
In den folgenden Fällen wird automatisch ein Index-Signal aufgezeichnet:

- Beim Aufnahmebeginn nach Einsetzen einer Cassette.
- Je nach der gewählten Einstellung für [SCENEINDEX] im Menü (➜ 122-126):

[2HOUR]: Bei erneutem Aufnahmestart nach mehr als 2 Stunden wird ein Indexsignal aufgezeichnet.
[DAY]: Bei erneutem Aufnahmestart nach Datumwechsel wird ein Indexsignal aufgezeichnet.

(Während des Aufnehmens eines Index-Signals blinkt die Anzeige [INDEX] für einige Sekunden.)

ENGLISH

Searching for the Beginning of Recorded Scenes Marked with Index Signal

(Index Search)

Index Search

To allow easy searching for desired scenes, this Camera Recorder automatically records index signals during recording as follows:

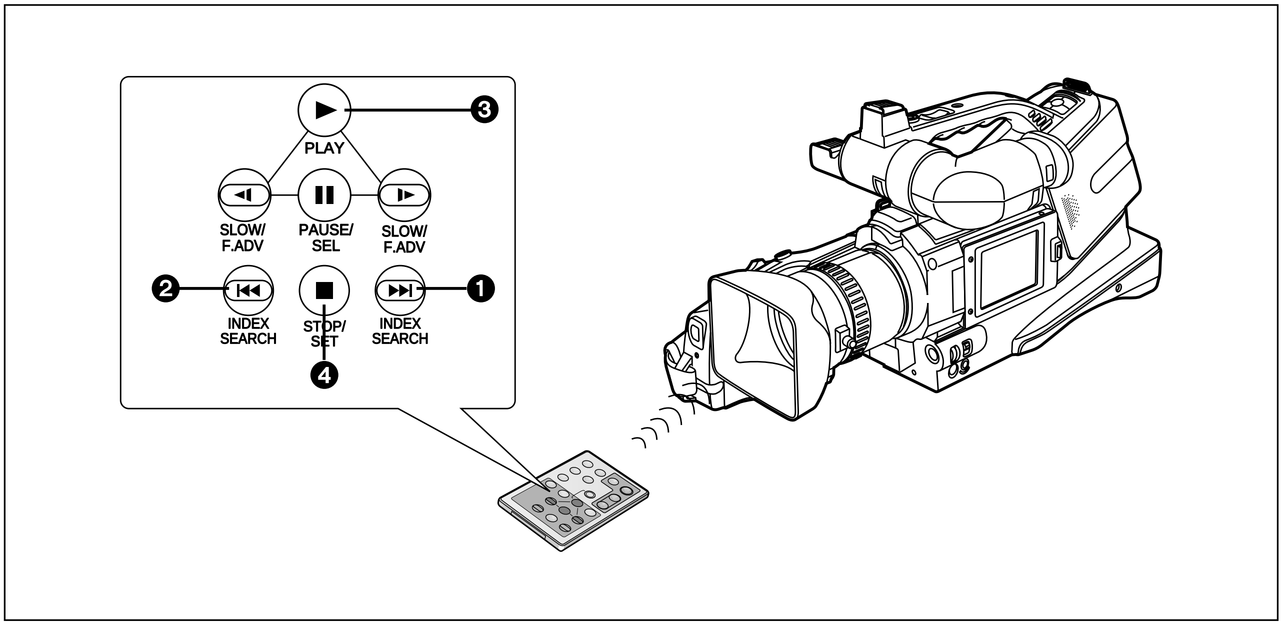
❶ Photoshot Index Signal
To search for still pictures recorded in the Photoshot Mode (➜ 44).
A photoshot index signal is automatically recorded every time you record a still picture in the Photoshot Mode.

❷ Scene Index Signal
To search for the beginning of recorded scenes.
A scene index signal is automatically recorded in the following cases:

- When you start recording after inserting a cassette.
- Depending on the setting of [SCENEINDEX] on the Menu (➜ 122-126):

[2HOUR]: An index signal is recorded when recording is restarted after a lapse of more than 2 hours.
[DAY]: An index signal is recorded when recording is restarted after the date has changed since the last recording.

(While an index signal is being recorded, the [INDEX] Indication flashes for a few seconds.)



DEUTSCH

Auffinden von Photoshot-Standbildern

(Photoshot-Index-Suchlauf)

- Am Camerarecorder die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] aufleuchtet.
- [SEARCH] im Menü auf [PHOTO] einstellen. (➜ 122, 128) (Die Einstellung ab Fabrik ist [PHOTO].)

Photoshot-Index-Suchlauf vorwärts

Die Index-Taste [►►I] ❶ auf der Fernbedienung drücken.

Photoshot-Index-Suchlauf rückwärts

Die Index-Taste [I◄◄] ❷ auf der Fernbedienung drücken.

- Bei jedem Druck auf die entsprechende Taste wird das Band bis zum nächsten Standbild, das im Photoshot-Modus aufgezeichnet wurde, vor- bzw. zurückgespult. Nach Erreichen des nächsten Standbildes wird dieses fortdauernd und der Ton ca. 4 Sekunden lang wiedergegeben. (Wenn Sie den Camerarecorder länger als 6 Minuten im Standbild-Wiedergabe-Modus lassen, schaltet er auf Stopp um, um die Videoköpfe gegen übermäßige Abnutzung zu schützen.)

♦ Bei nahe am Bandanfang aufgezeichneten Standbildern funktioniert der Photoshot-Index-Suchlauf u. U. nicht richtig.

- Wenn Sie die Taste [I◄◄] oder [►►I] länger als 2 Sekunden gedrückt halten, wird die Funktion Intro-Suchlauf ausgelöst. Mit dieser Funktion werden alle im Photoshot-Modus aufgezeichneten Standbilder nacheinander ein paar Sekunden lang wiedergegeben. (Um die Intro-Suchlauf-Funktion zu beenden, die Wiedergabe-Taste [►] ❸ oder die Stopp-Taste [■] ❹ drücken.)

ENGLISH

Searching for Photoshot Pictures

(Photoshot Index Search)

- Press the [VCR/CAMERA] Button on the Camera Recorder so that the [VCR] Lamp lights.
- Set [SEARCH] on the Menu to [PHOTO]. (➜ 122, 128) (The initial setting is [PHOTO].)

Photoshot Index Search in Forward Direction

Press the Index Button [►►I] ❶ on the Remote Controller.

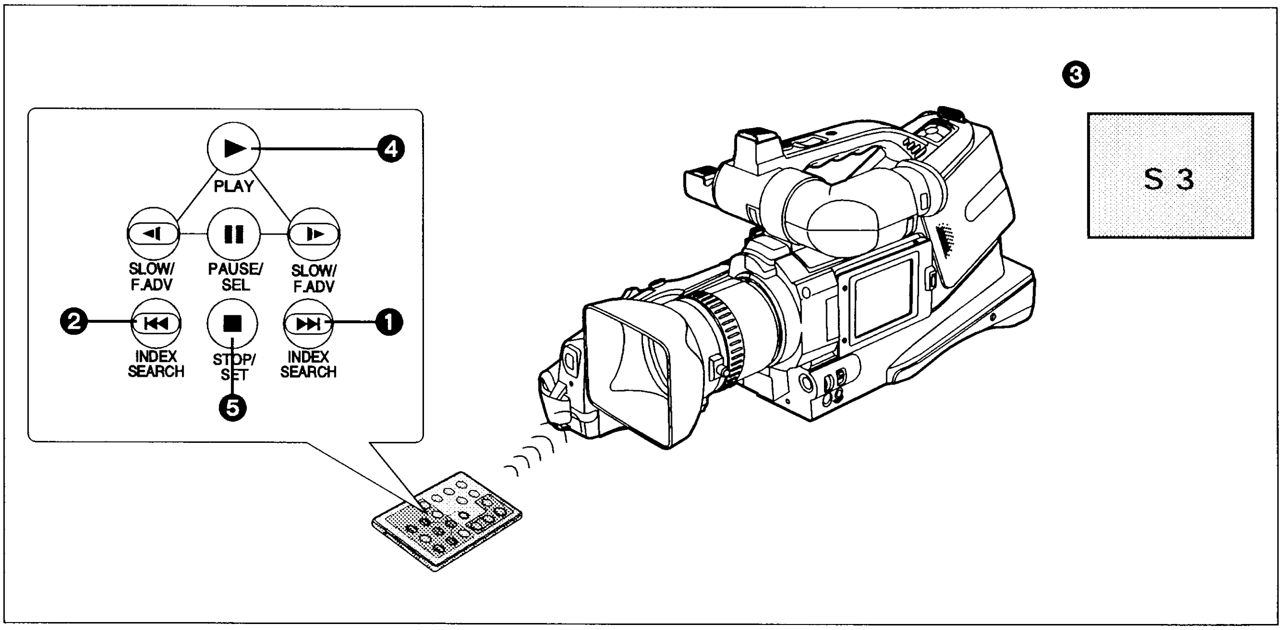
Photoshot Index Search in Reverse Direction

Press the Index Button [I◄◄] ❷ on the Remote Controller.

- At every press of the corresponding button, the tape is fast-forwarded or rewound to the next still picture recorded in the Photoshot Mode. After reaching the next still picture, the still picture is played back continually, however the sound only for approximately 4 seconds. (If you leave the Camera Recorder in the Still Playback Mode for more than 6 minutes, it switches over to the Stop Mode to protect the video heads against excessive wear).

♦ The Photoshot Index Search may not work correctly for still pictures recorded near the beginning of the tape.

- If you keep the [I◄◄] or [►►I] Button pressed for more than 2 seconds, the Intro Search Function is activated and it plays back all still pictures recorded in the Photoshot Mode on the cassette one after another for a few seconds each. (To cancel the Intro Search Function, press the Play Button [►] ❸ or the Stop Button [■] ❹.)



DEUTSCH

Auffinden des Anfangs aufgezeichneter Szenen (Szenen-Index-Suchlauf)

- Am Camerarecorder die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] aufleuchtet.
- [SEARCH] im Menü auf [SCENE] einstellen. (→ 122, 128)

Szenen-Index-Suchlauf in Vorwärtsrichtung
Die Index-Taste [▶▶I] ❶ auf der Fernbedienung drücken.

Szenen-Index-Suchlauf in Rückwärtsrichtung
Die Index-Taste [I◀◀] ❷ auf der Fernbedienung drücken.

- Bei kurzem Druck auf die entsprechende Taste erscheint die Anzeige [S1], und der Suchlauf nach der nächsten mit einem Index-Signal markierten Szene beginnt. Bei wiederholtem Drücken der Taste nachdem der Szenen-Index-Suchlauf ausgelöst worden ist, wechselt die Anzeige dementsprechend von [S2] bis auf [S9], und die der angezeigten Zahl entsprechende Szene wird angelaufen. ❸
  Nach Auffinden der gewünschten Szene beginnt die Wiedergabe automatisch. Der Index-Suchlauf läßt sich für maximal 9 mit einem Index-Signal markierte Szenen (von der gegenwärtigen aus) vorwählen.

- ♦ Wenn der Abstand zwischen zwei Szenen-Index-Signalen auf dem Band weniger als 1 Minute beträgt, funktioniert der Szenen-Index-Suchlauf u. U. nicht richtig.
- ♦ Bei nahe am Bandanfang aufgezeichneten Standbildern funktioniert der Szenen-Index-Suchlauf u. U. nicht richtig.
- Wenn Sie die Taste [I◀◀] oder [▶▶I] länger als 2 Sekunden gedrückt halten, wird die Funktion Intro-Suchlauf ausgelöst. In dieser Funktion werden die ersten paar Sekunden aller mit einem Index-Signal markierten Szenen nacheinander wiedergegeben.
  (Um die Intro-Suchlauf-Funktion zu beenden, die Wiedergabe-Taste [▶] ❹ oder die Stopp-Taste [■] ❺ drücken.)

ENGLISH

Searching for the Beginning of Recorded Scenes (Scene Index Search)

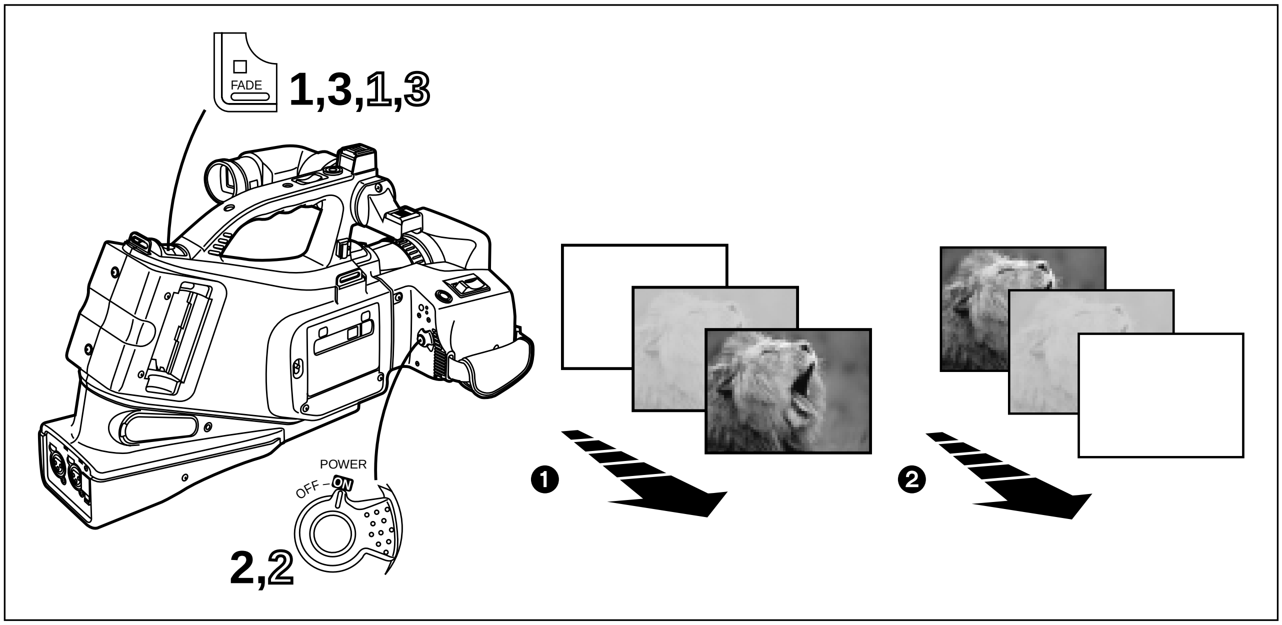
- Press the [VCR/CAMERA] Button on the Camera Recorder so that the [VCR] Lamp lights.
- Set [SEARCH] on the Menu to [SCENE]. (→ 122, 128)

Scene Index Search in Forward Direction
Press the Index Button [▶▶I] ❶ on the Remote Controller.

Scene Index Search in Reverse Direction
Press the Index Button [I◀◀] ❷ on the Remote Controller.

- When you briefly press the corresponding button once, the [S1] Indication appears and the search for the next scene marked with an index signal starts. After the Scene Index Search has started, every time you press the button, the indication changes successively from [S2] to [S9], and the beginning of the scene corresponding to the selected number is located. ❸
  After reaching the desired scene, playback starts automatically. (At a time, Scene Index Search in forward or reverse direction is possible up to the ninth scene marked with index signal from the present tape position.)

- ♦ If the interval between two scene index signals is less than 1 minute, the Scene Index Search may not work correctly.
- ♦ The Scene Index Search may not work correctly for scenes recorded near the beginning of the tape.
- If you keep the [I◀◀] or [▶▶I] Button pressed for more than 2 seconds, the Intro Search Function is activated and it plays back the beginning of all scenes marked with an index signal on the cassette one after another for a few seconds each.
  (To cancel the Intro Search Function, press the Play Button [▶] ❹ or the Stop Button [■] ❺.)



DEUTSCH

Ein- und Ausblenden

Einblenden ❶

Mit der Einblendfunktion können Sie das Bild zusammen mit dem Ton am Anfang einer Szene langsam von Schwarz einblenden.

1 Im Aufnahmepause-Modus die Ein-/Ausblend-Taste [■] gedrückt halten.
Das Bild verschwindet langsam.

2 Wenn das Bild vollständig verschwunden ist, die Start-/Stopp-Taste drücken, um mit dem Aufnehmen zu beginnen.

3 Ca. 3 Sekunden nach Aufnahmebeginn die Ein-/Ausblend-Taste [■] loslassen.
Das Bild erscheint langsam wieder.

Ausblenden ❷

Mit der Ausblendfunktion können Sie das Bild zusammen mit dem Ton am Ende einer Szene langsam auf Schwarz ausblenden.

1 Während des Aufnehmens die Ein-/Ausblend-Taste [■] an der gewünschten Stelle drücken und gedrückt halten.
Das Bild verschwindet langsam.

2 Nachdem das Bild vollständig verschwunden ist, die Start-/Stopp-Taste dücken, um das Aufnehmen zu beenden.
Der Camerarecorder ist im Aufnahmepause-Modus.

3 Die Ein-/Ausblend-Taste [■] loslassen.

ENGLISH

Fading In/Out

Fading In ❶

Fading-in lets you make the picture and sound appear gradually from a black screen at the beginning of a scene.

1 With the Camera Recorder in the Recording Pause Mode, keep the Fade Button [■] pressed.
The picture gradually disappears.

2 When the picture has completely disappeared, press the Start/Stop Button to start recording.

3 Approximately 3 seconds after the recording has started, release the Fade Button [■].
The picture gradually appears again.

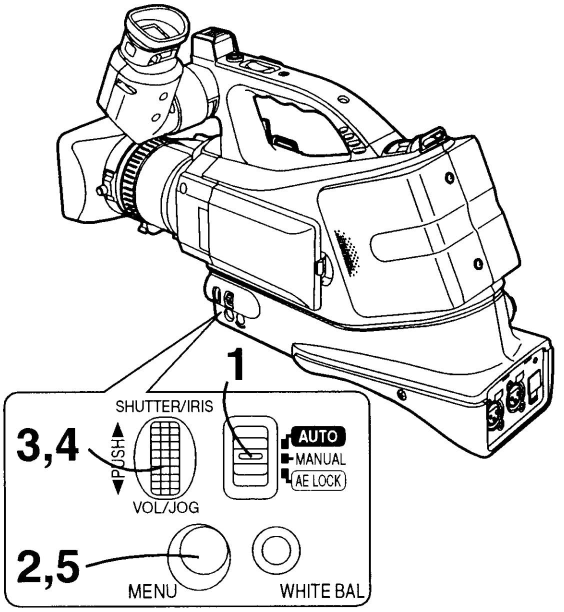
Fading Out ❷

Fading-out lets you make the picture and sound disappear gradually into a black screen at the end of a scene.

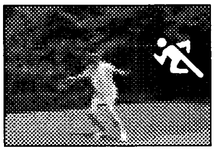
1 During recording, keep the Fade Button [■] pressed.
The picture gradually disappears.

2 After the picture has completely disappeared, press the Start/Stop Button to stop recording.
The Camera Recorder is in the Recording Pause Mode.

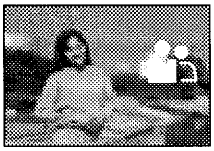
3 Release the Fade Button [■].



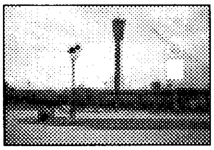
❶

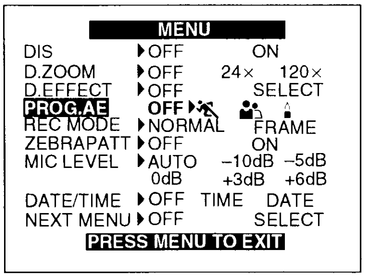


❷



❸





```
           MENU
DIS        ▸OFF       ON
D.ZOOM     ▸OFF    24×   120×
D.EFFECT   ▸OFF      SELECT
PROG.AE     OFF ▸🏃   👥   🕯
REC MODE   ▸NORMAL   FRAME
ZEBRAPATT  ▸OFF       ON
MIC LEVEL  ▸AUTO   −10dB  −5dB
             0dB    +3dB  +6dB
DATE/TIME  ▸OFF   TIME   DATE
NEXT MENU  ▸OFF      SELECT
      PRESS MENU TO EXIT
```

DEUTSCH

Aufnehmen in verschiedenen Situationen

(Belichtungsautomatik-Programme)

Dieser Camerarecorder bietet Ihnen verschiedene Belichtungsautomatik-Programme, die für spezielle Aufnahmesituationen optimiert sind.

1 Den Modus-Wahlschalter auf [MANUAL] einstellen.

Die Anzeige [MNL] erscheint.

2 Die Taste [MENU] drücken.

Das Menü erscheint.

3 Den Regler [PUSH] drehen, um [PROG.AE] zu wählen.

4 Den Regler [PUSH] drücken, um den gewünschten Modus ([🏃], [👥] oder [🕯]) zu wählen.

Wenn Sie die Verschlußzeit (→ 90) oder die Blende (→ 92) geregelt haben, ist es nicht möglich, einen Belichtungsautomatik-Programm-Modus zu wählen.

5 Die Taste [MENU] drücken, um das Menü auszublenden.

Die Anzeige des gewählten Belichtungsautomatik-Programm-Modus erscheint.

[🏃] Sport-Modus ❶
Zum Aufnehmen von Szenen mit viel schneller Bewegung, beispielsweise Sportszenen.

[👥] Porträt-Modus ❷
Zum Hervorheben eines scharf eingestellten Bildgegenstandes vor einem unscharfen Hintergrund.

[🕯] Schwachlicht-Modus ❸
Zum Aufhellen von dunklen Szenen.

Ausschalten der Belichtungsautomatik-Programm-Funktion
[PROG.AE] im Menü auf [OFF] stellen.

ENGLISH

Recording In Various Situations

(Programme AE)

This function lets you select Automatic Exposure settings optimized for special recording situations.

1 Set the Mode Selector Switch to [MANUAL].

The [MNL] Indication appears.

2 Press the [MENU] Button.

The Menu appears.

3 Turn the [PUSH] Dial to select [PROG.AE].

4 Press the [PUSH] Dial to select the desired mode ([🏃], [👥] or [🕯]).

If you have adjusted the shutter speed (→ 90) or the iris (→ 92), it is not possible to select a Programme AE Mode.

5 Press the [MENU] Button to exit the Menu.

The indication of the selected mode appears.

[🏃] Sports Mode ❶
To record scenes with fast-moving subjects such as sports scenes.

[👥] Portrait Mode ❷
To make subjects stand out sharply from the background.

[🕯] Low Light Mode ❸
To record dark scenes more brightly.

Cancelling the Programme AE Function
Set [PROG.AE] on the Menu to [OFF].

DEUTSCH

Aufnahmemodus Sport

- Bei der Wiedergabe von Szenen, die im Aufnahmemodus Sport aufgezeichnet wurden, können Sie Zeitlupen- und Standbild-Wiedergabe mit klaren Bildern und feinen Details genießen.
- Vermeiden Sie das Aufnehmen in diesem Modus unter Leuchtstofflampen, Quecksilberdampflampen oder Natrium lampen, denn die Farben und die Helligkeit des Wiedergabebildes sind u. U. nicht stabil.
- Beim Aufnehmen von Motiven unter extrem starker Beleuchtung oder mit viel Lichtreflexion können im Wiedergabebild u. U. vertikale Lichtstrahlen auftreten.
- Wenn das Motiv nicht ausreichend beleuchtet ist, blinkt die Anzeige [ ].
- Wenn dieser Modus für Innenaufnahmen benutzt wird, kann im Wiedergabebild Flimmern auftreten.
- Es ist nicht möglich, den Aufnahmemodus Sport [ ] zusammen mit dem Aufhellungs-Modus [GAINUP] im Menü [MENU (D.EFFECT)] zu wählen.

Aufnahmemodus Porträt

- Wenn dieser Modus für Innenaufnahmen benutzt wird, kann im Wiedergabebild Flimmern auftreten.
- Es ist nicht möglich, den Aufnahmemodus Porträt [ ] zusammen mit dem Aufhellungs-Modus [GAINUP] im Menü [MENU (D.EFFECT)] zu wählen.

Aufnahmemodus Schwachlicht

- Bei extrem dunklen Szenen können diese u. U. nicht ausreichend aufgehellt werden.

- Wenn Sie die Verschlußzeit (➜ 90) oder die Blende (➜ 92) geregelt haben, ist es nicht möglich, einen Belichtungsautomatik-Programm-Modus ([ ], [ ] oder [ ]) zu wählen.

ENGLISH

Sports Mode

- When playing back scenes recorded in the Sports Mode, you can enjoy slow motion and still playback of very sharp images with fine details.
- Avoid recording under fluorescent, mercury-vapour or natrium lamps in this mode, as the colour and the brightness of the playback picture might fluctuate.
- When recording subjects lit by strong lights or with much light reflection, the playback picture may contain vertical streaks of light.
- When the scene is not sufficiently lit, the [ ] Indication flashes.
- When using this mode for recording indoors, the playback picture may flicker.
- It is not possible to select the Sports Mode [ ] together with the Gain-up Mode [GAINUP] on the [MENU (D.EFFECT)] Menu.

Portrait Mode

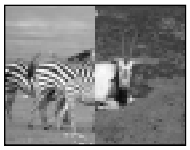
- When using this mode for recording indoors, the playback picture may flicker.
- It is not possible to select the Portrait Mode [ ] together with the Gain-up Mode [GAINUP] on the [MENU (D.EFFECT)] Menu.

Low Light Mode

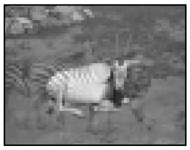
- It may not be possible to sufficiently brighten up extremely dark scenes.

- If you have adjusted the shutter speed (➜ 90) or the iris (➜ 92), it is not possible to select a Programme AE Mode ([ ], [ ] or [ ]).

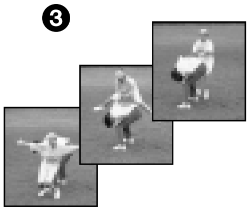
❶



❷



❸



❹

❺

DEUTSCH

Aufnehmen mit Spezial-Effekten

(Digital-Effekte)

Sie haben die Wahl zwischen 5 verschiedenen Modi, um Ihre Videofilme durch spezielle digitale Bildeffekte zu bereichern.

❶ **Wipe-Modus [WIPE]**
Mit dieser Funktion erzielen Sie saubere Szenenübergänge, wobei das neue Bild von rechts nach links eingeblendet wird, ähnlich dem Ziehen eines Vorhanges. Für nähere Einzelheiten, (➜ 82).

❷ **Mix-Modus [MIX]**
Mit dieser Funktion erzielen Sie ebenfalls saubere Szenenübergänge, wobei die letzte Szene langsam ausgeblendet und die neue Szene langsam darüber eingeblendet wird. Für nähere Einzelheiten, (➜ 84).

❸ **Stroboskop-Modus [STROBE]**
Die Bilder werden mit einem stroboskopartigen Effekt aufgenommen.

❹ **Aufhellungs-Modus [GAINUP]**
Das Bild wird elektronisch aufgehellt.
- ● In diesem Modus sollte die Scharfeinstellung manuell vorgenommen werden.
- ♦ Beim Aufnehmen im Aufhellungs-Modus kann ein Nachziehen des Bildes auftreten.

❺ **Schwarzweiß-Modus [B/W]**
Die Bilder werden in Schwarzweiß aufgezeichnet.

♦ Die Digital-Effekte können nicht benutzt werden, wenn die Digital-Bildstabilisator-Funktion oder die Digital-Zoom-Funktion eingeschaltet ist, oder wenn [REC MODE] im Menü auf [FRAME] eingestellt ist.
Wenn Sie einen Digital-Effekt benutzen möchten, sollten Sie sich vergewissern, daß [D.ZOOM] und [DIS] im Menü auf [OFF] eingestellt sind und [REC MODE] auf [NORMAL] eingestellt ist.

ENGLISH

Recording with Special Effects

(Digital Effects)

There are 5 different modes available for adding special digital picture effects.

❶ **Wipe Mode [WIPE]**
It gradually replaces a picture of the last recorded scene with the picture of the new scene, like drawing a curtain. For details, (➜ 82).

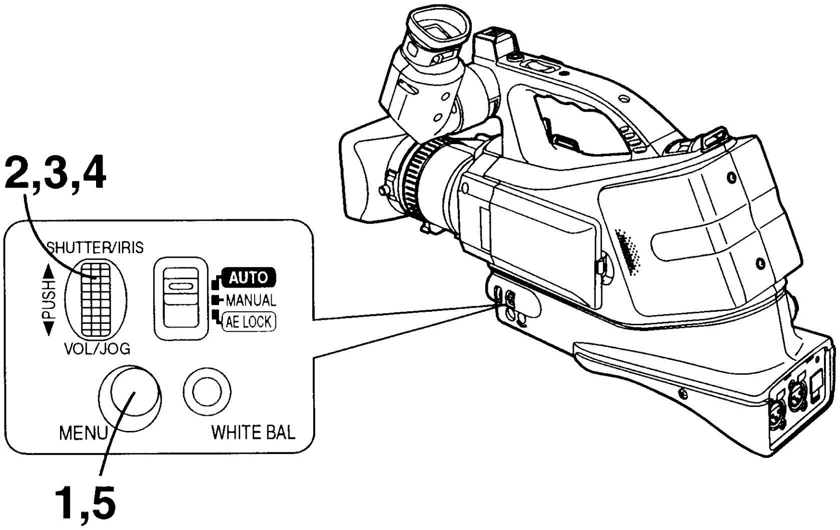
❷ **Mix Mode [MIX]**
It gradually fades out the picture of the last recorded scene while fading in the picture of the new scene. For details, (➜ 84).

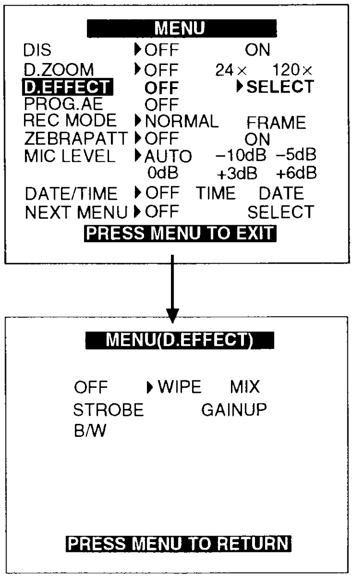
❸ **Strobe Mode [STROBE]**
It records the pictures with a stroboscope-like effect.

❹ **Gain-up Mode [GAINUP]**
It electronically brightens up the picture.
- ● In this mode, adjust the focus manually.
- ♦ Some after-image distortion may occur during recording with the Gain-up Function.

❺ **Monotone Mode [B/W]**
The picture is recorded in black and white.

♦ The Digital Effects cannot be used when the Digital Image Stabilizer Function or the Digital Zoom Function is activated, or when [REC MODE] on the Menu is set to [FRAME].
When you want to use a digital effect, make sure that [D.ZOOM] and [DIS] on the Menu are set to [OFF] and that [REC MODE] is set to [NORMAL].


2,3,4
SHUTTER/IRIS
▲PUSH▼
VOL/JOG
AUTO
MANUAL
AE LOCK
MENU
WHITE BAL
1,5


MENU
DIS ▶OFF ON
D.ZOOM ▶OFF 24× 120×
D.EFFECT OFF ▶SELECT
PROG.AE OFF
REC MODE ▶NORMAL FRAME
ZEBRAPATT ▶OFF ON
MIC LEVEL ▶AUTO -10dB -5dB 0dB +3dB +6dB
DATE/TIME ▶OFF TIME DATE
NEXT MENU ▶OFF SELECT
PRESS MENU TO EXIT
MENU(D.EFFECT)
OFF ▶WIPE MIX
STROBE GAINUP
B/W
PRESS MENU TO RETURN

DEUTSCH

Aufnehmen mit Spezial-Effekten

(Digital-Effekte) (Fortsetzung)

Wählen des gewünschten Digital-Effektes

1 Die Taste [MENU] drücken.

Das Menü erscheint.

2 Den Regler [PUSH] drehen, um [D.EFFECT] zu wählen.

- ♦ Die Digital-Effekte können nicht benutzt werden, wenn die Digital-Bildstabilisator-Funktion oder die Digital-Zoom-Funktion eingeschaltet ist, oder wenn [REC MODE] im Menü auf [FRAME] eingestellt ist. Wenn Sie einen Digital-Effekt benutzen möchten, sollten Sie sich vergewissern, daß [D.ZOOM] und [DIS] im Menü auf [OFF] eingestellt sind und [REC MODE] auf [NORMAL] eingestellt ist.

3 Den Regler [PUSH] drücken, um [SELECT] zu wählen.

Das Menü [MENU (D.EFFECT)] erscheint.

4 Den Regler [PUSH] drücken, um den gewünschten Digital-Effekt zu wählen.

5 Die Taste [MENU] zweimal drücken, um das Menü auszublenden.

- ● Das Bild hat jetzt den gewählten Digital-Effekt. Der Effekt der Funktionen Wipe und Mix wird erst sichtbar, wenn im entsprechenden Modus aufgezeichnet wird. (➔ 82, 84)

- ♦ Wenn Sie [GAINUP] im Menü [MENU (D.EFFECT)] gewählt haben, ist es nicht möglich, den manuellen Weißabgleich-Modus zu wählen.
- ♦ Wenn Sie die Verschlußzeit (➔ 90) oder die Blende (➔ 92) geregelt haben, ist es nicht möglich, [GAINUP] im Menü [MENU (D.EFFECT)] zu wählen.
- ♦ Es ist nicht möglich, den Aufnahmemodus Sport [🏃] oder Porträt [👤] zusammen mit dem Aufhellungs-Modus [GAINUP] im Menü [MENU (D.EFFECT)] zu wählen.

Ausschalten des Digital-Effektes

[D.EFFECT] im Menü auf [OFF] einstellen.

ENGLISH

Recording with Special Effects

(Digital Effects) (Continued)

Selecting the Desired Digital Effect

1 Press the [MENU] Button.

The Menu appears.

2 Turn the [PUSH] Dial to select [D.EFFECT].

- ♦ The Digital Effects cannot be used when the Digital Image Stabilizer Function or the Digital Zoom Function is activated, or when [REC MODE] on the Menu is set to [FRAME].
When you want to use a digital effect, make sure that [D.ZOOM] and [DIS] on the Menu are set to [OFF] and that [REC MODE] is set to [NORMAL].

3 Press the [PUSH] Dial to select [SELECT].

The [MENU (D.EFFECT)] Menu appears.

4 Press the [PUSH] Dial to select the desired digital effect.

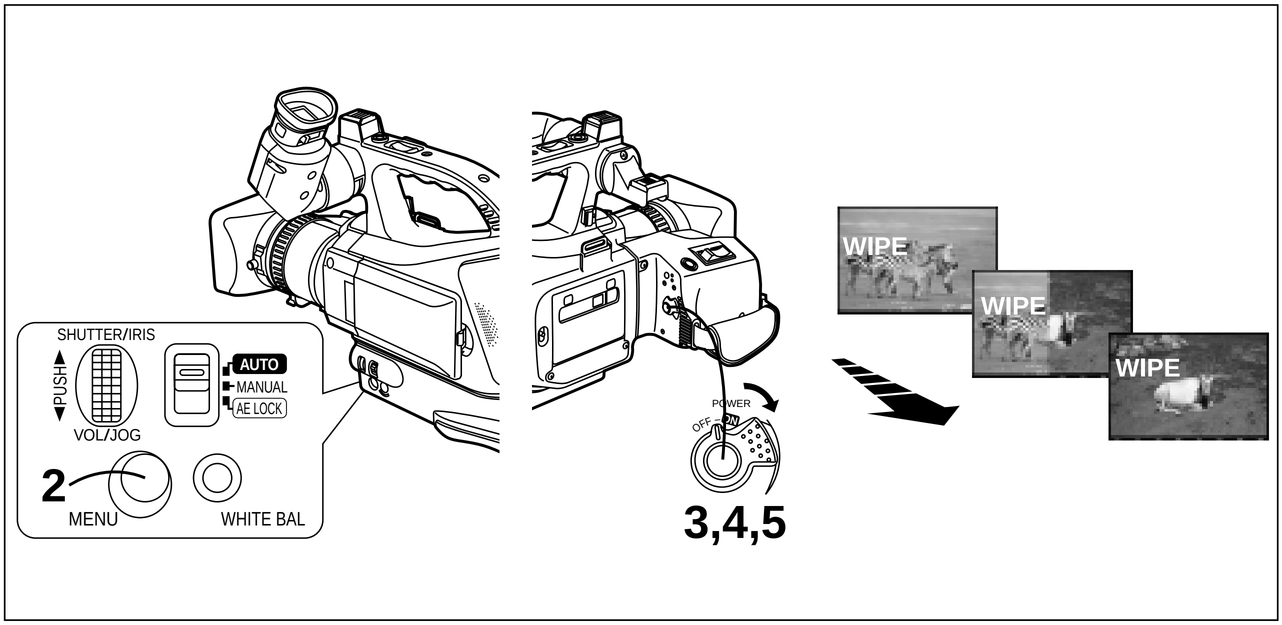
5 Press the [MENU] Button twice to exit the Menu.

- ● The picture has the selected digital effect now. However, the effect of the Wipe Function and the Mix Function only become visible when actually recording in the respective mode. (➔ 82, 84)

- ♦ If you have selected [GAINUP] on the [MENU (D.EFFECT)] Menu, it is not possible to select the Manual White Balance Mode.
- ♦ If you have adjusted the shutter speed (➔ 90) or the iris (➔ 92), it is not possible to select [GAINUP] on the [MENU (D.EFFECT)] Menu.
- ♦ It is not possible to select the Sports Mode [🏃] or the Portrait Mode [👤] together with the Gain-up Mode [GAINUP] on the [MENU (D.EFFECT)] Menu.

Cancelling the Digital Effect

Set [D.EFFECT] on the Menu to [OFF].



DEUTSCH

Aufnehmen mit Spezial-Effekten

(Digital-Effekte) (Fortsetzung)

■ Szenenübergänge mit Wischblende (Wipe)

Diese Funktion ersetzt ein Standbild der zuletzt aufgenommenen Szene langsam durch das laufende Bild der neuen Szene von rechts nach links, ähnlich dem Ziehen eines Vorhanges.

Nach Durchführen der Bedienschritte 1-3 auf Seite 80:

1. **[WIPE] im Menü [MENU (D.EFFECT)] wählen. (➜ 80)**
2. **Die Taste [MENU] zweimal drücken, um das Menü auszublenden.**
   Die Anzeige [WIPE] erscheint.
3. **Die Start-/Stopp-Taste drücken, um die Aufnahme zu starten.**
   Die normale Aufnahme beginnt.
4. **Die Start-/Stopp-Taste drücken, um eine Aufnahmepause einzulegen.**
   Das letzte Bild wird im Speicher festgehalten.
5. **Die Start-/Stopp-Taste drücken, um die Aufnahme erneut zu starten.**
   Das letzte Bild der vorhergehenden Szene wird jetzt langsam vom rechten Bildrand ausgehend durch die neue Szene ersetzt.

ENGLISH

Recording with Special Effects

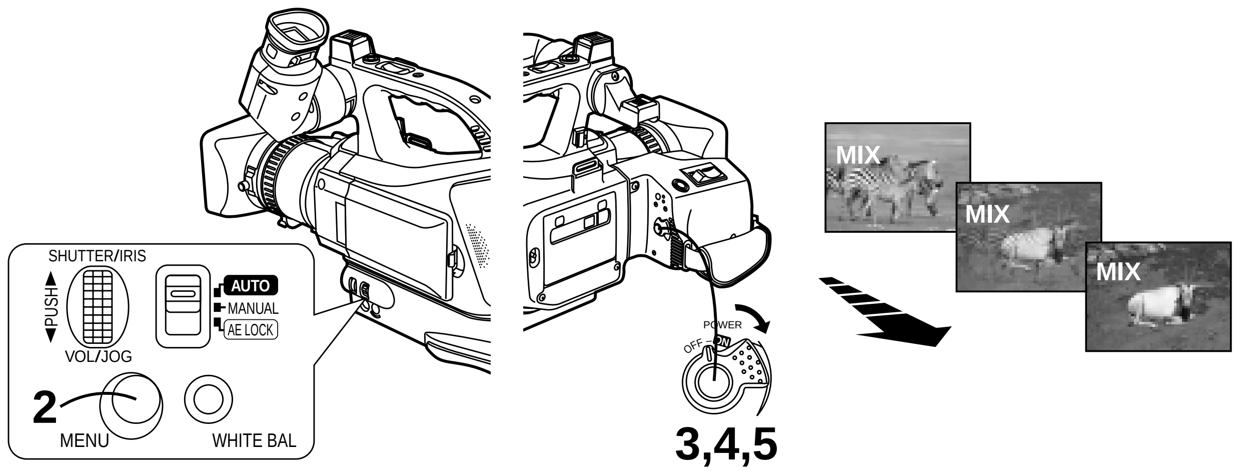
(Digital Effects) (Continued)

■ Wipe Mode

It gradually replaces a still picture of the last recorded scene with the moving picture of the new scene, like drawing a curtain.

After performing steps 1-3 on page 80:

1. **Select [WIPE] on the [MENU (D.EFFECT)] Menu. (➜ 80)**
2. **Press the [MENU] Button twice to exit the Menu.**
   The [WIPE] Indication appears.
3. **Press the Start/Stop Button to start recording.**
   The normal recording starts.
4. **Press the Start/Stop Button to pause recording.**
   The last picture is stored in memory.
5. **Press the Start/Stop Button to start recording again.**
   The last picture of the previous scene is gradually replaced by the new scene.



DEUTSCH

Aufnehmen mit Spezial-Effekten

(Digital-Effekte) (Fortsetzung)

■ Szenenübergänge mit Mischblende (Mix)

Diese Funktion blendet ein Standbild der zuletzt aufgenommenen Szene langsam aus und blendet gleichzeitig das laufende Bild der neuen Szene darüber ein.

Nach Durchführen der Bedienschritte 1-3 auf Seite 80:

1. **[MIX] im Menü [MENU (D.EFFECT)] wählen. (➜ 80)**
2. **Die Taste [MENU] zweimal drücken, um das Menü auszublenden.**
   Die Anzeige [MIX] erscheint.
3. **Die Start-/Stopp-Taste drücken, um die Aufnahme zu starten.**
   Die normale Aufnahme beginnt.
4. **Die Start-/Stopp-Taste drücken, um eine Aufnahmepause einzulegen.**
   Das letzte Bild wird im Speicher festgehalten.
5. **Die Start-/Stopp-Taste drücken, um die Aufnahme erneut zu starten.**
   Das letzte Bild der vorhergehenden Szene wird jetzt langsam ausgeblendet und gleichzeitig die neue Szene darüber eingeblendet.

ENGLISH

Recording with Special Effects

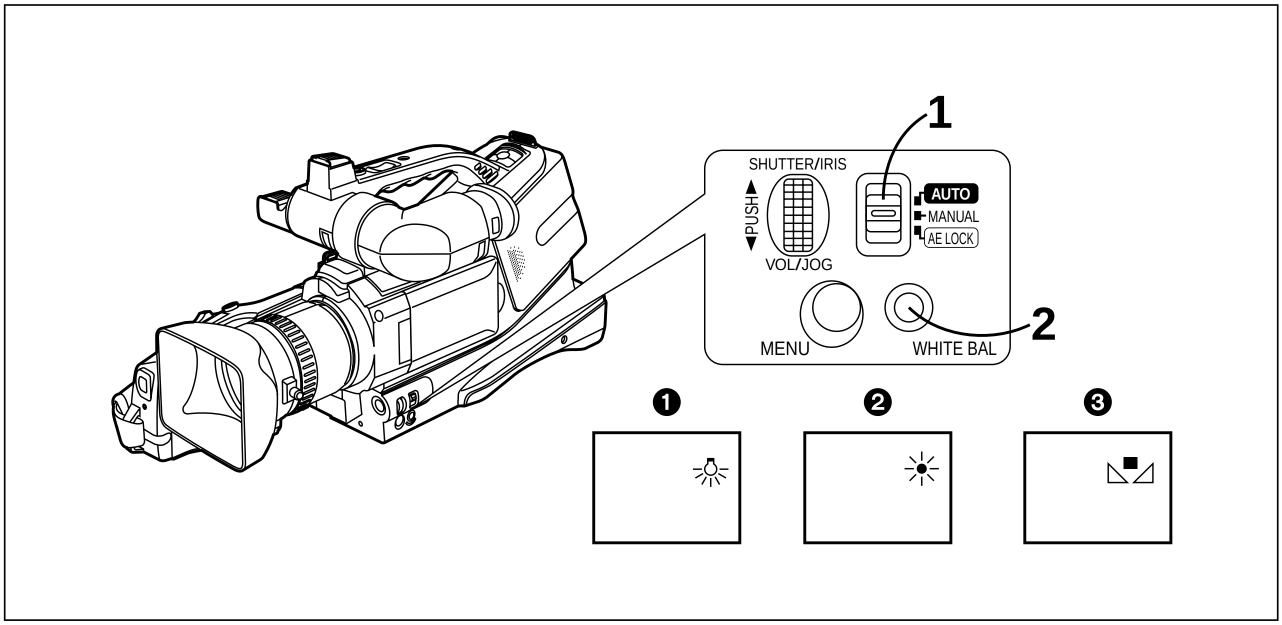
(Digital Effects) (Continued)

■ Mix Mode

It gradually fades out a still picture of the last recorded scene while fading in the moving picture of the new scene.

After performing steps 1-3 on page 80:

1. **Select [MIX] on the [MENU (D.EFFECT)] Menu. (➜ 80)**
2. **Press the [MENU] Button twice to exit the Menu.**
   The [MIX] Indication appears.
3. **Press the Start/Stop Button to start recording.**
   The normal recording starts.
4. **Press the Start/Stop Button to pause recording.**
   The last picture is stored in memory.
5. **Press the Start/Stop Button to start recording again.**
   The last picture gradually fades out while the new scene fades in.



DEUTSCH

Aufnehmen mit natürlichen Farben

(Weißabgleich)

Dieser Camerarecorder nimmt den Weißabgleich automatisch vor, damit die Bilder mit natürlichen Farben aufgezeichnet werden. Für gewisse Motive und Aufnahmesituationen (➜ 154, 156) kann die automatische Weißabgleich-Funktion jedoch nicht natürliche Farben gewährleisten. In diesen Fällen empfiehlt es sich, den Weißabgleich manuell vorzunehmen.

1 Den Modus-Wahlschalter auf [MANUAL] einstellen.

Die Anzeige [MNL] erscheint.

2 Die Taste [WHITE BAL] drücken.

Die Taste [WHITE BAL] wiederholt drücken, um den gewünschten Weißabgleich-Modus zu wählen.

Die Modi wechseln in folgender Reihenfolge:

❶ Innenaufnahme-Modus (Glühlampen) (☼)
❷ Außenaufnahme-Modus (☀)
❸ Verriegelungs-Modus (◪)

♦ Wenn Sie [GAINUP] im Menü [MENU (D.EFFECT)] wählen, können Sie den Weißabgleich-Modus nicht wählen oder ändern.

Zurückschalten auf automatischen Weißabgleich

Den Modus-Wahlschalter auf [AUTO] einstellen.

ENGLISH

Recording with Natural Colours

(White Balance)

This Camera Recorder automatically adjusts the white balance to ensure that the pictures are recorded with natural colours. For certain types of subjects and lighting conditions, however, this Auto White Balance Adjustment Mode may not be able to ensure natural colours (➜ 154, 156). In these cases, adjust the white balance manually.

1 Set the Mode Selector Switch to [MANUAL].

The [MNL] Indication appears.

2 Press the [WHITE BAL] Button.

Repeatedly press the [WHITE BAL] Button to select the desired White Balance Mode.

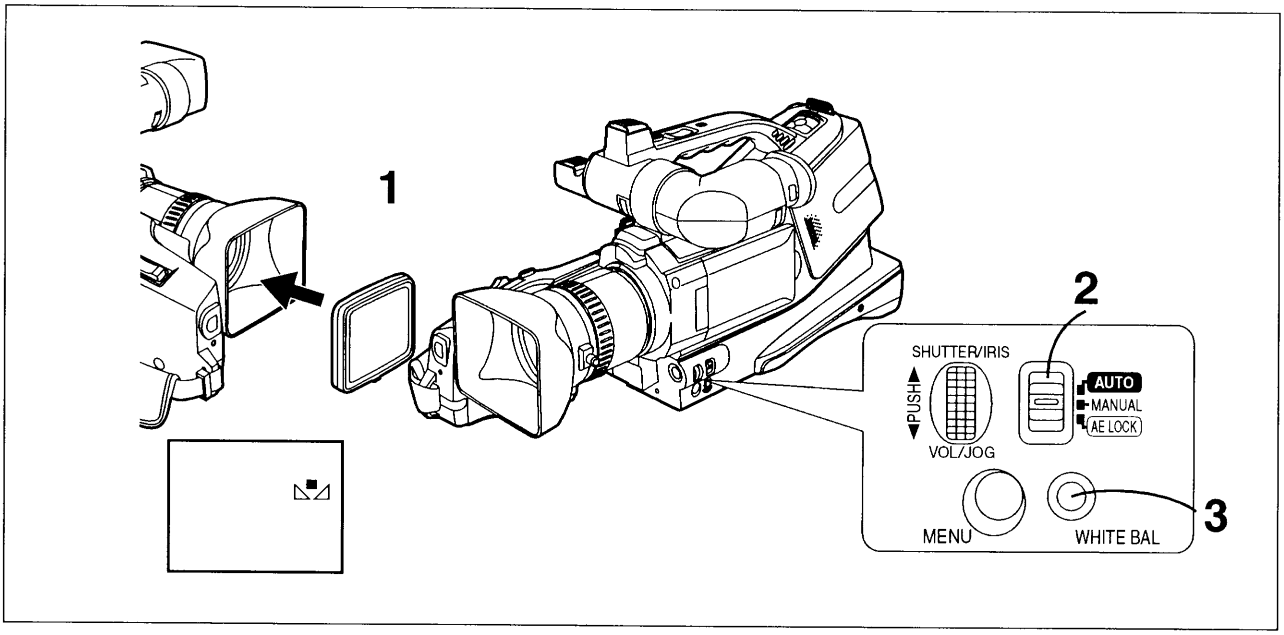
The modes change in the following order:

❶ Indoor (Incandescent Lamp) Mode (☼)
❷ Outdoor Mode (☀)
❸ Lock Mode (◪)

♦ If you select [GAINUP] on the [MENU (D.EFFECT)] Menu, you cannot select or change the White Balance Mode.

Returning to the Auto White Balance Adjustment Mode

Set the Mode Selector Switch to [AUTO].



DEUTSCH

Manueller Weißabgleich

Benutzen Sie den manuellen Weißabgleich-Modus für alle Beleuchtungstypen außerhalb des Bereichs ❶ (→ 156), da der automatische Weißabgleich-Modus nur für die Beleuchtungstypen innerhalb dieses Bereichs Bilder mit natürlichen Farben gewährleisten kann. Für optimale Farbwiedergabe unter fast allen Beleuchtungstypen empfiehlt es sich, den Weißabgleich für jede einzelne Szene manuell durchzuführen.

1 Den Objektivdeckel aufsetzen und heranzoomen, bis der ganze Bildschirm weiß wird.

2 Den Modus-Wahlschalter auf [MANUAL] einstellen.
Die Anzeige [MNL] erscheint.

3 Die Taste [WHITE BAL] gedrückt halten, bis die Anzeige [◺■◿] zu blinken aufhört und weiterhin leuchtet.

- Der Weißabgleich ist jetzt beendet. Falls Sie diese Einstellung später erneut verwenden möchten, beispielsweise nach Benutzen des automatischen Weißabgleichs, können Sie sie abrufen, indem Sie die Taste [WHITE BAL] dreimal drücken. (In diesem Fall blinkt die Anzeige [◺■◿].)
- ♦ Wenn die Anzeige [◺■◿] unter schwacher Beleuchtung dauernd blinkt, kann der Weißabgleich nicht manuell eingestellt werden.

Zurückschalten auf automatischen Weißabgleich

Den Modus-Wahlschalter auf [AUTO] einstellen.

ENGLISH

Adjusting the White Balance Manually

Use the Manual White Balance Adjustment Mode for all types of lighting outside the range ❶ (→ 156), as the Auto White Balance Adjustment Mode can only ensure natural colours for the types of lighting within that range. For optimum results under almost any types of lighting, we recommend that you adjust the white balance manually for each new scene.

1 Attach the Lens Cap and zoom in until the entire screen becomes white.

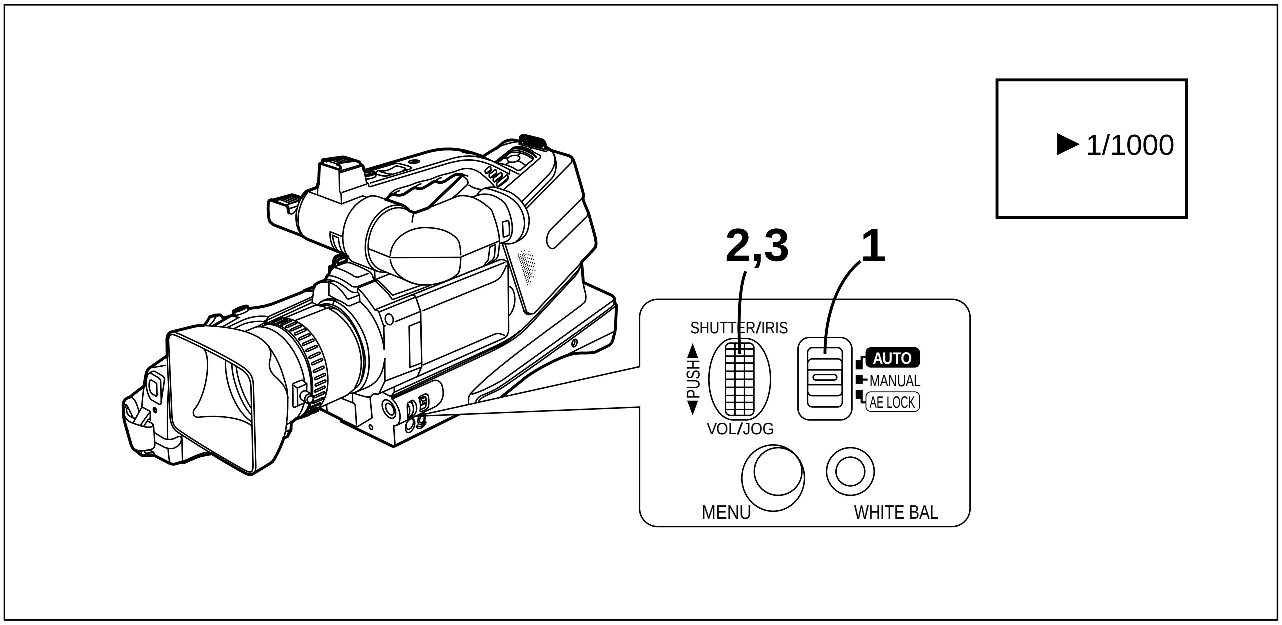
2 Set the Mode Selector Switch to [MANUAL].
The [MNL] Indication appears.

3 Keep the [WHITE BAL] Button pressed until the [◺■◿] Indication stops flashing and remains lit.

- The Manual White Balance Adjustment is now finished. If you want to use this setting again later on, for example after having used Automatic White Balance Adjustment, you can recall it by pressing the [WHITE BAL] Button 3 times. (In this case, the [◺■◿] Indication flashes.)
- ♦ When the [◺■◿] Indication remains flashing under weak illumination, the Manual White Balance Adjustment cannot be set manually.

Returning to the Auto White Balance Adjustment Mode

Set the Mode Selector Switch to [AUTO].



DEUTSCH

Manuelles Einstellen der Verschlußzeit

Zum Erzielen spezieller kreativer Effekte, oder auch für spezielle Beleuchtungssituationen oder Motive mit viel schneller Bewegung, können Sie die Verschlußzeit manuell regeln.

1 Den Modus-Wahlschalter auf [MANUAL] einstellen.

Die Anzeige [MNL] erscheint.

2 Den Regler [PUSH] drücken.

Wenn Sie die Verschlußzeit geregelt haben, ist es nicht möglich, einen Belichtungsautomatik-Programm-Modus ([🏃], [👤] oder [🕯]) oder den Aufhellungs-Modus [GAINUP] im Menü [MENU (D.EFFECT)] zu wählen.

3 Den Regler [PUSH] drehen, um die Verschlußzeit zu regeln.

Einstellbereich für die Verschlußzeit

1/50–1/8000 s

Die normale Verschlußzeit ist 1/50 s.

Je näher bei [1/8000] die gewählte Einstellung ist, desto kürzer wird die Verschlußzeit.

Zurückschalten auf die normale Verschlußzeit

Den Modus-Wahlschalter auf [AUTO] einstellen.

ENGLISH

Adjusting the Shutter Speed Manually

To achieve special creative effects or to cope with special lighting situations or fast-action scenes, you can adjust the shutter manually.

1 Set the Mode Selector Switch to [MANUAL].

The [MNL] Indication appears.

2 Press the [PUSH] Dial.

If you have adjusted the shutter speed, it is not possible to select a Programme AE Mode ([🏃], [👤], or [🕯]) or the Gain-up Mode [GAINUP] on the [MENU (D.EFFECT)] Menu.

3 Turn the [PUSH] Dial to adjust the shutter speed.

Range of Shutter Speed Adjustment

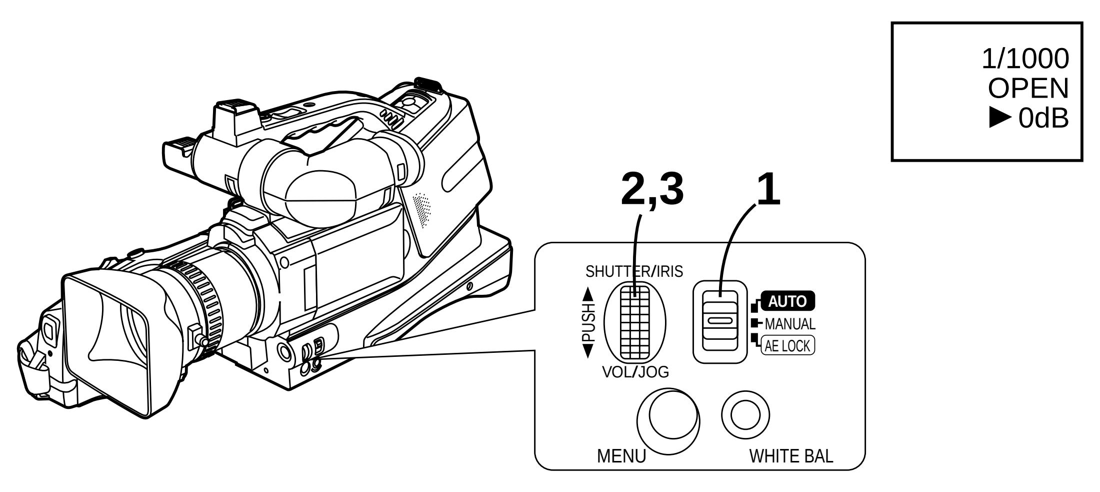
1/50 –1/8000 s

The standard shutter speed is 1/50 s.

The nearer to [1/8000] a setting you select, the faster the shutter speed becomes.

Returning to the Normal Shutter Speed

Set the Mode Selector Switch to [AUTO].



DEUTSCH

Manuelles Einstellen der Blende

Zum Erzielen spezieller kreativer Effekte, oder für spezielle Beleuchtungssituationen oder Motive mit viel schneller Bewegung, können Sie auch die Blende manuell regeln.

1 Den Modus-Wahlschalter auf [MANUAL] einstellen.
Die Anzeige [MNL] erscheint.

2 Den Regler [PUSH] zweimal drücken.
Die Anzeige [▶F] erscheint.

3 Den Regler [PUSH] drehen, um die Blende zu regeln.

Einstellbereich für die Blende

CLOSE (geschlossen) ➜ F16.0...F1.7 ➜ OPEN (voll geöffnet) +0dB...+18dB
Je näher bei [CLOSE] die gewählte Einstellung ist, desto dunkler wird das Bild.
Je näher bei [OPEN] die gewählte Einstellung ist, desto heller wird das Bild.
Die Zahlen mit +dB zeigen Aufhellungswerte an. Wenn Sie einen zu hohen Wert wählen, kann sich die Bildqualität verschlechtern.

Zurückschalten auf die normale Blende

Den Modus-Wahlschalter auf [AUTO] einstellen.

- Durch manuelles Einstellen der Verschlußzeit (➜ 90) nach manuellem Regeln der Blende wird die Blende auf automatische Einstellung zurückgestellt. Wenn Sie daher sowohl die Verschlußzeit als auch die Blende manuell einstellen möchten, müssen Sie unbedingt zuerst die Verschlußzeit und dann die Blende regeln.
- Wenn Sie die Blende geregelt haben, ist es nicht möglich, einen Belichtungsautomatik-Programm-Modus ([🏃], [👥] oder [🕯]) oder den Aufhellungs-Modus [GAINUP] im Menü [MENU (D.EFFECT)] zu wählen.

ENGLISH

Adjusting the Iris (F Number) Manually

To achieve special creative effects or to cope with special lighting situations or fast-action scenes, you can adjust the iris (F number) manually.

1 Set the Mode Selector Switch to [MANUAL].
The [MNL] Indication appears.

2 Press the [PUSH] Dial twice.
The [▶F] Indication appears.

3 Turn the [PUSH] Dial to adjust the iris.

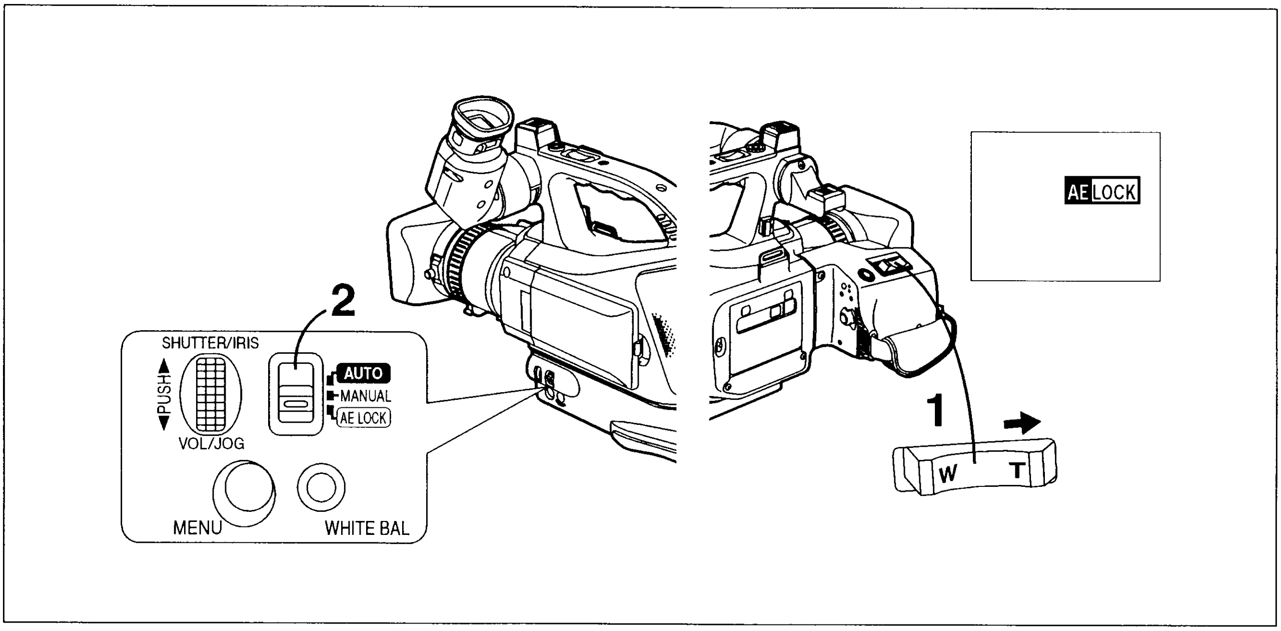
Range of Iris Adjustment

CLOSE (Closed) ➜ F16.0...F1.7 ➜ OPEN (Opened) +0dB...+18dB
The nearer to [CLOSE] a value you select, the darker the picture becomes.
The nearer to [OPEN] a value you select, the brighter the picture becomes.
The figures with +dB show the Gain-up value. If you increase the value too much, the picture quality deteriorates.

Returning to the Normal Iris Value (F Number)

Set the Mode Selector Switch to [AUTO].

- Manually adjusting the shutter speed (➜ 90) after performing manual iris adjustment changes the iris back to automatic adjustment.
  Therefore, if you want to adjust both the shutter speed and iris manually, be sure to adjust the shutter speed first.
- If you have adjusted the iris, it is not possible to select a Programme AE Mode ([🏃], [👥] or [🕯]) or the Gain-up Mode [GAINUP] on the [MENU (D.EFFECT)] Menu.



DEUTSCH

Aufnehmen mit gleichbleibender Helligkeit (AE Lock-Funktion)

Die AE Lock-Funktion ermöglicht es Ihnen, einen Bildgegenstand mit gleichbleibender Helligkeit aufzunehmen. Wenn Sie beispielsweise mit dem Camerarecorder einer Person folgen, die sich von einem hellen an einen dunklen Ort (oder umgekehrt) begibt, verhindert diese Funktion, daß das Gesicht heller oder dunkler wird.

1 Den Zoomhebel [W/T] gegen [T] drücken, um den Bildgegenstand heranzuzoomen.

2 Den Modus-Wahlschalter auf [AE LOCK] einstellen.
Die Anzeige [AE LOCK] erscheint.
Die Helligkeit des Bildes bleibt jetzt auf dem Wert eingestellt, den es beim Umschalten auf [AE LOCK] hatte.

Ausschalten der AE Lock-Funktion
Den Modus-Wahlschalter auf [AUTO] oder [MANUAL] einstellen.

Verriegeln der Helligkeit auf einem gewünschten Wert
Nach Durchführen des obigen Schrittes 1 zuerst den Modus-Wahlschalter auf [MANUAL] einstellen, dann die Helligkeit manuell regeln (➜ 90, 92), und abschließend den Modus-Wahlschalter auf [AE LOCK] einstellen.

ENGLISH

Recording with Fixed Brightness (AE Lock)

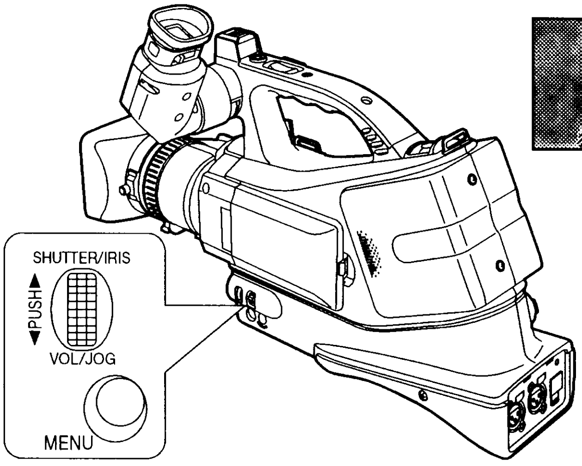
The AE Lock Function lets you record a subject with the same brightness even when the lighting conditions change greatly. For example, when you record a person who moves from a bright to a dark place, or vice versa, this function prevents the person's face from becoming brighter or darker.

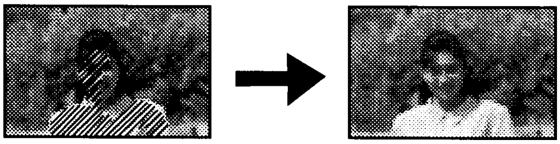
1 Push the [W/T] Zoom Lever toward [T] to zoom in on the subject.

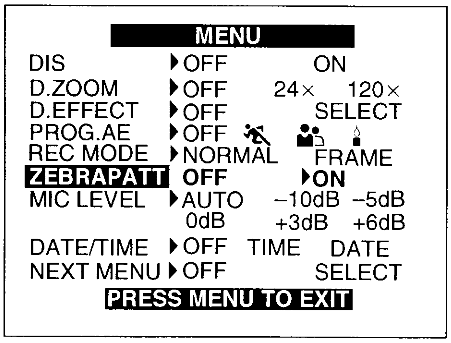
2 Set the Mode Selector Switch to [AE LOCK].
The [AE LOCK] Indication appears.
The brightness of the picture is now locked to the value it had at the moment of setting the switch to [AE LOCK].

Cancelling the AE Lock Function
Set the Mode Selector Switch to [AUTO] or [MANUAL].

Locking the Brightness at a Desired Level
After Step 1 above, set the Mode Selector Switch to [MANUAL] to adjust the brightness manually (➜ 90, 92) and then set the Mode Selector Switch to [AE LOCK].







```
                 MENU
DIS         ▸OFF          ON
D.ZOOM      ▸OFF     24×    120×
D.EFFECT    ▸OFF         SELECT
PROG.AE     ▸OFF
REC MODE    ▸NORMAL      FRAME
ZEBRAPATT    OFF         ▸ON
MIC LEVEL   ▸AUTO    –10dB  –5dB
              0dB     +3dB  +6dB
DATE/TIME   ▸OFF   TIME    DATE
NEXT MENU   ▸OFF         SELECT
          PRESS MENU TO EXIT
```

DEUTSCH

Weitere praktische Funktionen

Zebramuster

Mit Hilfe des Zebramusters läßt sich die Helligkeit des Bildes bequem auf einen optimalen Wert einstellen, und zwar bereits vor dem Aufnehmen. Wenn Sie [ZEBRAPATT] im Menü auf [ON] einstellen, erscheinen im Sucher diagonale weiße Streifen (Zebramuster) an überbelichteten Bildstellen (extrem hell beleuchtete und glänzende Bildgegenstände). Um das Aufnehmen von überbelichteten, ausgewaschenen Bildern zu verhindern, sollten Sie in einem solchen Falle die Verschlußzeit (➜ 90) und/oder die Blende/Aufhellung (➜ 92) manuell so regeln, daß das Zebramuster verschwindet. Beim Aufnehmen einer Person in einem weißen Hemd beispielsweise ist so einzustellen, daß das Zebramuster über dem Gesicht gerade verschwindet aber über dem Hemd deutlich sichtbar bleibt. Wenn es auch über dem Hemd verschwindet, wird das Bild zu dunkel.
Das Zebramuster wird selbstverständlich nicht im Bild mit aufgezeichnet.

- Zebramuster erscheint nicht auf dem LCD-Monitor.

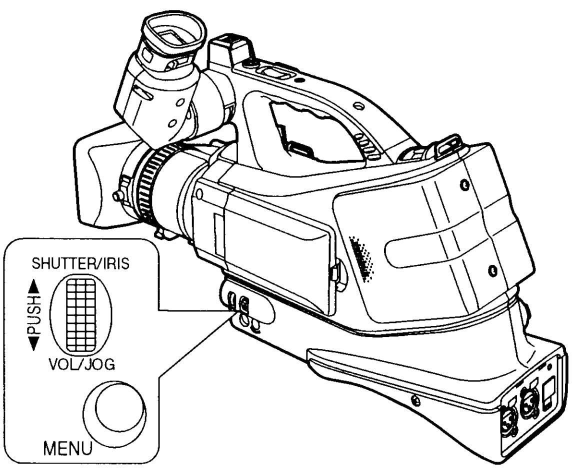
ENGLISH

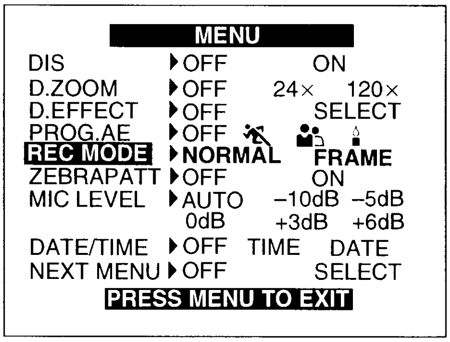
Other Convenient Functions

Zebra Pattern

Using the Zebra Pattern makes it easy to adjust the brightness of the picture to an optimum level, even before you start recording.
If you set [ZEBRAPATT] on the Menu to [ON], diagonal white bands (Zebra Pattern) appear or in the Finder on parts of the picture which are overexposed (extremely brightly lit and shiny subjects).
To prevent recording of overexposed, whitish pictures, manually adjust the shutter speed (➜ 90) and/or iris/gain (➜ 92) so that the Zebra Pattern disappears.
However, when recording a person wearing a white shirt, adjust so that the Zebra Pattern over the face just disappears but remains distinctly over the white shirt. If it disappears over the white shirt, the picture becomes too dark.
Of course, the Zebra Pattern is not recorded onto the tape.

- Zebra pattern does not appear on LCD monitor.





```
              MENU
DIS          ▸OFF        ON
D.ZOOM       ▸OFF     24×   120×
D.EFFECT     ▸OFF       SELECT
PROG.AE      ▸OFF
REC MODE     ▸NORMAL    FRAME
ZEBRAPATT    ▸OFF        ON
MIC LEVEL    ▸AUTO   −10dB  −5dB
               0dB    +3dB  +6dB
DATE/TIME    ▸OFF  TIME   DATE
NEXT MENU    ▸OFF       SELECT
        PRESS MENU TO EXIT
```

DEUTSCH

Weitere praktische Funktionen

(Fortsetzung)

Aufnahme-Modus

Wenn Sie [REC MODE] im Menü zum Aufnehmen auf [FRAME] einstellen (➜ 122, 124), können Sie die so aufgenommenen Standbilder mit erhöhter Auflösung wiedergeben.

NORMAL:	Diesen Modus für normales Aufnehmen wählen.
FRAME:	Da die Bilder als Vollbilder aufgezeichnet werden, ist ihre vertikale Auflösung 50% höher als beim normalen Aufnahme-Modus (Halbbilder). Schnelle Bewegungen im Bild können dabei jedoch ruckartig wirken. Wählen Sie diese Einstellung zum Aufnehmen von Standbildern, die Sie ausdrucken oder in einen Computer eingeben möchten.

- ♦ Wenn Sie [REC MODE] im Menü auf [FRAME] einstellen, ist es nicht möglich, auch einen Digital-Effekt zu benutzen. (➜ 78)

ENGLISH

Other Convenient Functions

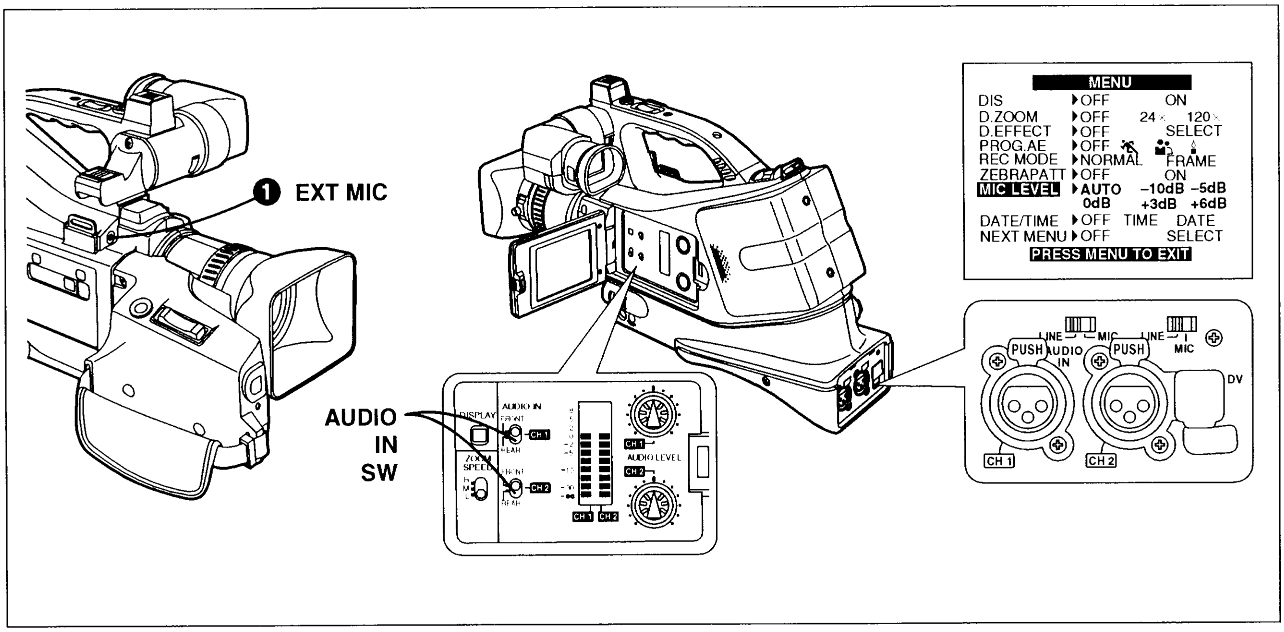
(Continued)

Recording Mode

If you set [REC MODE] on the Menu to [FRAME] for recording (➜ 122, 124), the still picture can be played back with increased clarity.

NORMAL:	Select this mode for normal recording.
FRAME:	As the pictures are recorded as frames, their vertical resolution is 50% higher than in normal recording. However, fast movements in the picture become somewhat jerky. Use this mode for recording still pictures that you want to print or import into computer applications.

- ♦ If you set [REC MODE] to [FRAME], it is not possible to use a digital effect. (➜ 78)


❶ EXT MIC
AUDIO IN SW
DISPLAY
AUDIO IN
FRONT
REAR
CH1
CH2
ZOOM SPEED
AUDIO LEVEL
MENU
DIS ▶OFF ON
D.ZOOM ▶OFF 24× 120×
D.EFFECT ▶OFF SELECT
PROG.AE ▶OFF
REC MODE ▶NORMAL FRAME
ZEBRAPATT ▶OFF ON
MIC LEVEL ▶AUTO −10dB −5dB 0dB +3dB +6dB
DATE/TIME ▶OFF TIME DATE
NEXT MENU ▶OFF SELECT
PRESS MENU TO EXIT
LINE MIC
LINE MIC
PUSH
AUDIO IN
PUSH
DV
CH1
CH2

DEUTSCH

■ Verwendung eines internen Mikrofons

1. Den AUDIO IN CH/CH2-Schalter auf FRONT stellen.

■ Verwendung eines externen Mikrofons

1. Das Mikrofonkabel an die Buchse EXT MIC anschließen. ❶
2. Den Schalter AUDIO IN CH1/CH2 auf FRONT stellen.
   - Interne Mikrofone werden automatisch auf externe Mikrofone umgeschaltet.
   - Den Ferritkern in der gleichen Verpackung ans Mikrofonkabel anbauen.

■ Verwendung eines an den hinteren Audioeingangsanschluß angeschlossenen externen Mikrofons

1. Den Schalter AUDIO MIC/LINE auf MIC stellen.
   - Bis zu zwei externe Mikrofone können an die Buchsen AUDIO IN CH1/CH2 angeschlossen werden.
2. Schalter AUDIO IN
   Die Schalter AUDIO IN der Kanäle, an welche Mikrofone angeschlossen sind, auf REAR stellen.

■ Anschluß eines Audio-Line-Eingangs

1. Wird eine Audio-LINE-Eingangs-Signalquelle verwendet, ist die Audiokomponente an die Buchsen AUDIO IN CH1/CH2 des Camerarecorders anzuschließen.
2. Schalter AUDIO IN
   Den Schalter AUDIO IN des Kanals, an den die Audiosignalquelle angeschlossen ist, auf REAR stellen.
3. Den Schalter AUDIO MIC/LINE auf LINE stellen.

■ Manuelle Einstellung des Audiopegels

1. Der Audiopegel kann durch Drehen der Regler AUDIO LEVEL CH1/CH2 so einstellen, daß der Pegelmesser bei maximaler Lautstärke höchstens +8 dB anzeigt.
   - [MIC LEVEL] aufs Kamera-Mode-Menü (➜ 124) oder [AUDIO DUB] aufs VCR-Mode Menü stellen (➜ 128) auf AUTO bei Regelung des Audiopegels.

ENGLISH

■ Using the Internal Microphone

1. Set the [AUDIO IN CH/CH2] switch to [FRONT] side.

■ Using the External Microphone

1. Connect the microphone connecting cable to the EXT MIC jack. ❶
2. Set the AUDIO IN CH1/CH2 switch to FRONT.
   - Internal microphones will be switched to external microphones automatically.
   - Attach the ferrite core in the same package to the microphone cable.

■ Using the External Microphone connected to rear audio input connector

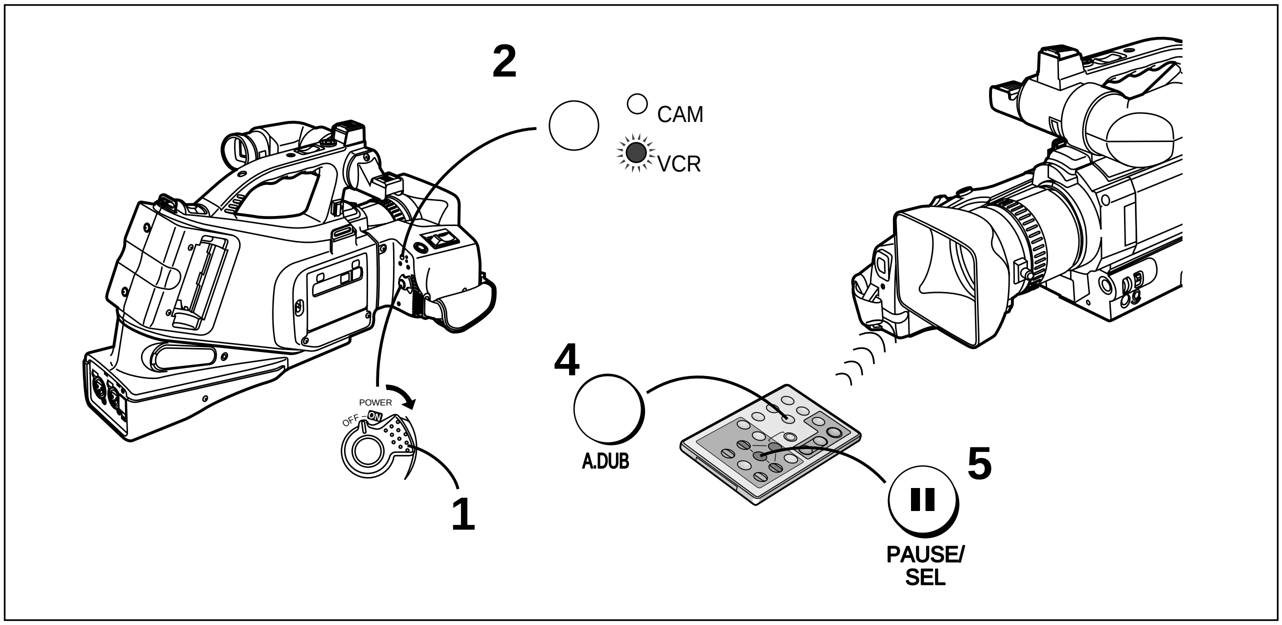
1. Set the AUDIO MIC/LINE switch to MIC.
   - Up to two external microphones can be connected to the AUDIO IN CH1/CH2 connectors.
2. AUDIO IN Switch
   Set the AUDIO IN switch of the channels to which microphones are connected to REAR.

■ Connecting an Audio Line Input

1. When using an audio line input signal source, connect the audio component to the unit's AUDIO IN CH1/CH2 connectors.
2. AUDIO IN Switch
   Set the AUDIO IN switch of the channels to which microphones are connected to REAR.
3. Set the AUDIO MIC/LINE switch to LINE.

■ Adjusting the audio level manually

1. The AUDIO LEVEL CH1/CH2 Controls can adjust the audio level so that the level metre appears up to +8 dB at the maximum volume.
   - Set the [MIC LEVEL] on the camera Mode Menu (➜ 124) or [AUDIO DUB] on the VCR Mode Menu (➜ 128) to AUTO when adjusting the audio level.



DEUTSCH

Hinzufügen von neuem Ton auf einer aufgezeichneten Cassette

(Nachvertonung)

Zum Durchführen der Nachvertonung ist die Fernbedienung notwendig.
Mit Nachvertonung können Sie den Ton der Originalaufnahme durch Musik, Kommentar und spezielle Toneffekte bereichern.

- **Wenn [AUDIO REC] im Menü auf [16bit] eingestellt worden ist, wird durch die Nachvertonung der Originalton vollständig gelöscht.**
Wenn Sie daher vorhaben, später Nachvertonung durchzuführen, aber auch den Originalton beibehalten möchten, müssen Sie unbedingt [AUDIO REC] im Menü auf [12bit] einstellen, bevor Sie die Originalaufnahme machen.
- Auf Aufnahmen, welche im LP-Modus gemacht wurden, kann eine Nachvertonung nicht durchgeführt werden. (➜ 28)

1 Die Cassette mit der Originalaufnahme einsetzen und den Schalter [POWER] auf [ON] stellen.

2 Die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] aufleuchtet.

3 An der Stelle, ab welcher Sie den neuen Ton einfügen möchten, den Camerarecorder auf Standbild-Wiedergabe umschalten.

4 Die Taste [A.DUB] auf der Fernbedienung drücken.

5 Die Pausentaste [❚❚] auf der Fernbedienung drücken, um die Nachvertonung zu starten.

Stoppen der Nachvertonung

Die Pausentaste [❚❚] auf der Fernbedienung drücken.
Der Camerarecorder ist erneut im Standbild-Wiedergabe-Modus.

ENGLISH

Adding New Sound on a Recorded Cassette

(Audio Dubbing)

To perform audio dubbing, the Remote Controller is necessary.
You can add music or narration on a recorded cassette.

- **If [AUDIO REC] on the Menu has been set to [16bit], performing audio dubbing will completely erase the previously recorded sound.**
Therefore, if you intend to perform audio dubbing but also want to keep the original sound, be sure to set [AUDIO REC] on the Menu to [12bit] before making the original recording.
- It is not possible to perform audio dubbing onto recordings made in the LP Mode. (➜ 28)

1 Insert the recorded cassette and set the [POWER] Switch to [ON].

2 Press the [VCR/CAMERA] Button so that the [VCR] Lamp lights.

3 At the point from which you want to insert the new sound, switch the Camera Recorder over to the Still Playback Mode.

4 Press the [A.DUB] Button on the Remote Controller.

5 Press the Pause Button [❚❚] on the Remote Controller to start audio dubbing.

Stopping Audio Dubbing

Press the Pause Button [❚❚] on the Remote Controller.
The Camera Recorder is again in the Still Playback Mode.

DEUTSCH

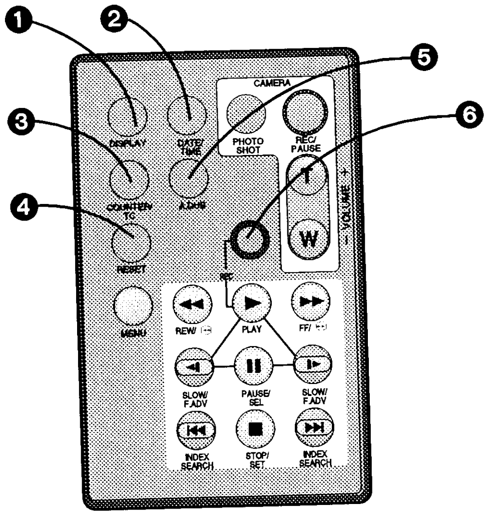
Wiedergabe des mit Nachvertonung aufgezeichneten Tons

- ♦ Wenn Sie für die Originalaufnahme [AUDIO REC] im Menü auf [12bit] eingestellt hatten, werden der mit Nachvertonung hinzugefügte Ton und der Originalton entsprechend der für [AUDIO OUT] im Menü für die Wiedergabefunktionen gewählten Einstellung wiedergegeben (➜ 122-128):
  - ST1: Der Originalton allein wird wiedergegeben.
  - ST2: Der Ton der Nachvertonung allein wird wiedergegeben.
  - MIX: Der Originalton und der mit Nachvertonung hinzugefügte Ton werden zusammen wiedergegeben.
- ♦ **Nachvertonung nicht auf Bandabschnitten ohne Originalaufnahme durchführen. Dies könnte Störungen in der Bild- und Tonwiedergabe verursachen.**
- ● Wenn Sie das Bandzählwerk an der Stelle, wo die Nachvertonung enden soll, auf Null zurückstellen und die Speicherstopp-Funktion (➜ 158) einschalten, stoppt die Nachvertonung beim Erreichen dieser Bandstelle automatisch.

ENGLISH

Playing Back the Sound Recorded with Audio Dubbing

- ♦ If you set [AUDIO REC] on the Menu to [12bit] for the original recording, the sound added with audio dubbing and the original sound are played back as follows depending on the setting selected for [AUDIO OUT] on the VCR Mode Menu (➜ 122-128):
  - ST1: The original sound alone is played back.
  - ST2: The dubbed sound alone is played back.
  - MIX: The original sound and the sound added with audio dubbing are played back together.
- ♦ **Do not perform audio dubbing onto unrecorded parts of the tape. This could cause the playback picture and sound to be distorted.**
- ● If you reset the Tape Counter to zero at the point where you want the audio dubbing to end and turn on the Memory Stop Function (➜ 158), the audio dubbing automatically stops when the tape reaches that point.



DEUTSCH

Fernbedienung

Mit der mitgelieferten Fernbedienung können Sie einen Großteil der wichtigsten Funktionen dieses Camerarecorders aus einiger Entfernung auslösen.

Tasten auf der Fernbedienung

❶ **Anzeigenausgabe-Taste [DISPLAY] (➜ 58)**
Zum Einblenden der Funktions- und Betriebsanzeigen auf einem angeschlossenen Fernsehgerät.

❷ **Datums- und Uhrzeit-Taste [DATE/TIME] (➜ 50)**
Zum Ein- und Ausblenden der Datums-/Uhrzeit-Anzeige im Bild während der Aufnahme oder Wiedergabe.

❸ **Anzeige-Umschalttaste [COUNTER/TC] (➜ 166)**
Zum Wählen der gewünschten Zählwerk-Anzeige.

❹ **Rückstelltaste [RESET] (➜ 158)**
Zum Rückstellen des Bandzählwerkes auf Null.

❺ **Nachvertonungstaste [A.DUB] (➜ 104)**
Zum Durchführen von Nachvertonung.

❻ **Aufnahmetaste [REC] (➜ 118)**
Zum Überspielen von Digital-Signalen auf den Camerarecorder über die DV-Eingangs-/Ausgangsbuchse die Taste [REC] zusammen mit der Taste [PLAY] drücken.

ENGLISH

Remote Controller

Using the wireless Remote Controller supplied with the Camera Recorder allows operating most of the Camera Recorder's major functions from a distance.

Buttons on the Remote Controller

❶ **Indication Output Button [DISPLAY] (➜ 58)**
To display the function and operation indications on a connected TV.

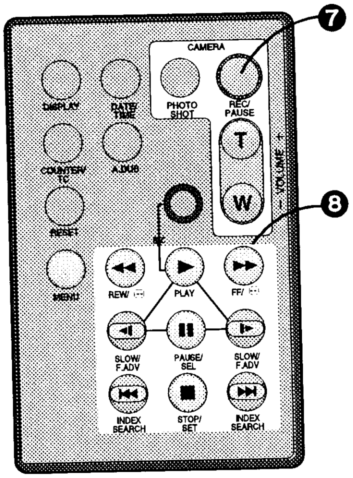
❷ **Date and Time Button [DATE/TIME] (➜ 50)**
To make the Date/Time Indication appear or disappear in the picture during recording and playback.

❸ **Indication Shift Button [COUNTER/TC] (➜ 166)**
To select the desired Counter Indication.

❹ **Reset Button [RESET] (➜ 158)**
To reset the Tape Counter to zero.

❺ **Audio Dubbing Button [A.DUB] (➜ 104)**
To perform audio dubbing.

❻ **Recording Button [REC] (➜ 118)**
To dub digital signals input into the Camera Recorder via the DV Input/Output Terminal, press the [REC] Button and the [PLAY] Button together.



DEUTSCH

❼ Tasten für Aufnahme und Tonaussteuerung

Standbild-Aufnahmetaste [PHOTO SHOT] (➜ 44)

Zum Aufnehmen von Standbildern.

Aufnahme-Start-/Stopp-Taste [REC/PAUSE] (➜ 34)

Zum Starten und Stoppen der Aufnahme.

Zoom-/Lautstärkeregler-Tasten [ZOOM/VOLUME]

Zum Heran- und Zurückzoomen. (➜ 42)
Zum Regeln der Lautstärke des Wiedergabetons. (➜ 50)

❽ Tasten für die Wiedergabe/Menü-Einstellungen

Rückspul-/Rückwärts-Bildsuchlauf-Taste [◀◀]

Beim Drücken während normaler Wiedergabe: Zum Starten des Bildsuchlaufs rückwärts (➜ 52); und beim Drücken im Stopp-Modus: Zum Rückspulen des Bandes.
Außerdem beim Gedrückthalten im Aufnahmepause-Modus: Zum Auslösen der Kamera-Suchlauf-Funktion (➜ 62) in Rückwärtsrichtung. Bei kurzem Drücken wird die Aufnahmeprüfungs-Funktion (➜ 36) ausgelöst.

Vorspul-/Vorwärts-Bildsuchlauf-Taste [▶▶]

Beim Drücken während normaler Wiedergabe: Zum Starten des Bildsuchlaufs vorwärts (➜ 52); und beim Drücken im Stopp-Modus: Zum Vorspulen des Bandes.
Außerdem beim Gedrückthalten im Aufnahmepause-Modus: Zum Auslösen der Kamera-Suchlauf-Funktion (➜ 62) in Vorwärtsrichtung.

Wiedergabe-Taste [▶] (➜ 50)

Zum Starten der Wiedergabe.

ENGLISH

❼ Controls for Recording and Sound Volume

Photoshot Button [PHOTO SHOT] (➜ 44)

To record still pictures.

Recording Start/Stop Button [REC/PAUSE] (➜ 34)

To start and pause recording.

Zoom/Sound Volume Buttons [ZOOM/VOLUME]

To zoom in and out. (➜ 42)
To adjust the volume of the playback sound. (➜ 50)

❽ Controls for Playback/Menu Setting

Rewind/Review Button [◀◀]

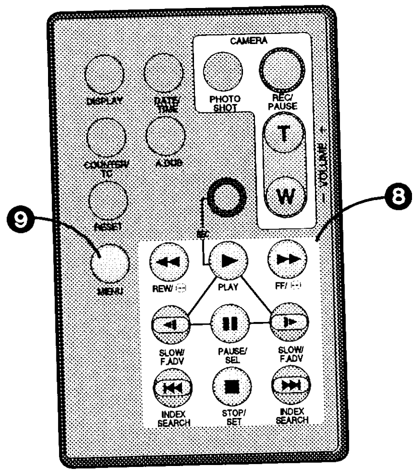
To start review playback (➜ 52) if pressed during normal playback; and to rewind the tape if pressed in the Stop Mode.
Also to activate the Camera Search Function (➜ 62) in reverse direction if kept pressed in the Recording Pause Mode. Pressing it briefly activates the Recording Check Function (➜ 36).

Fast-forward/Cue Button [▶▶]

To start cue playback (➜ 52) if pressed during normal playback; and to fast-forward the tape if pressed in the Stop Mode.
Also to activate the Camera Search Function (➜ 62) in forward direction if kept pressed in the Recording Pause Mode.

Play Button [▶] (➜ 50)

To start playback.



DEUTSCH

⑧ Zeitlupen-/Einzelbild-Taste [◀I, I▶] (➜ 54, 56)

Beim Drücken während normaler Wiedergabe: Zum Auslösen der Zeitlupen-Wiedergabe; und beim Drücken im Standbild-Wiedergabe-Modus: Zur Wiedergabe Standbild um Standbild.
(◀I: In Rückwärtsrichtung; I▶: In Vorwärtsrichtung)

Index-Suchlauf-Taste [I◀◀, ▶▶I] (➜ 68, 70)

Zum schnellen Auffinden des Anfangs aufgezeichneter Szenen, die mit Index-Signal markiert sind, und von Standbildern, die im Photoshot-Modus aufgezeichnet worden sind.
(I◀◀: In Rückwärtsrichtung; ▶▶I: In Vorwärtsrichtung)

Stopp/Einstell-Taste [■] (➜ 50)

Zum Stoppen des Bandlaufs.

Pausen/Wahl-Taste [❚❚] (➜ 56)

Zum Anhalten der Wiedergabe und Umschalten auf Standbild-Wiedergabe.

⑨ Menü-Taste [MENU]

Beim Drücken der Menü-Taste [MENU] wird das Menü eingeblendet.
In diesem Falle haben die folgenden Tasten geänderte Funktionen:

Pausentaste → Wahl-Taste
Zum Wählen von Einstellpunkten im Menü.

Stopp-Taste → Einstell-Taste
Zum Einstellen des gewünschten Modus für den gewählten Einstellpunkt.

- Die Blende und die Verschlußzeit können nicht mit der Fernbedienung eingestellt werden. Wenn Sie diese manuell einstellen möchten, benutzen Sie dafür den Regler [PUSH] am Camerarecorder. (➜ 90, 92)

ENGLISH

⑧ Slow Motion/Frame Advance Button [◀I, I▶] (➜ 54, 56)

To perform Slow Motion Playback if pressed in the Normal Playback Mode; and to perform Still Advance Playback if pressed in the Still Playback Mode.
(◀I: in reverse direction, I▶: in forward direction)

Index Search Button [I◀◀, ▶▶I] (➜ 68, 70)

To search for recorded scenes marked with an index signal and for still images recorded in the Photoshot Mode.
(I◀◀: in reverse direction, ▶▶I: in forward direction)

Stop/Set Button [■] (➜ 50)

To stop the tape.

Pause/Select Button [❚❚] (➜ 56)

To pause playback. The playback picture stands still.

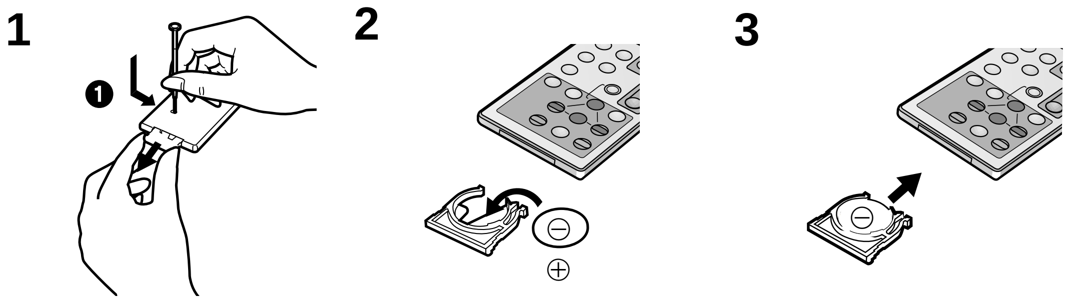
⑨ Menu Button [MENU]

Pressing the Menu Button [MENU] displays the Menu.
In this case, the functions of the following buttons are changed:

Pause Button → Select Button
To select items on the Menu.

Stop Button → Set Button
To set the mode for the selected item.

- The iris and the shutter speed cannot be adjusted with the Remote Controller. If you want to adjust them manually, use the [PUSH] Dial on the Camera Recorder. (➜ 90, 92)



DEUTSCH

Fernbedienung (Fortsetzung)

■ Einsetzen der Knopfzelle

Vor dem Benutzen der Fernbedienung die mitgelieferte Knopfzelle einsetzen.

1 Den Stopper mit einem spitzen Gegenstand in Pfeilrichtung ❶ schieben und gleichzeitig die Knopfzellen-Halterung herausziehen.

2 Die Knopfzelle mit der eingeprägten (+)-Marke nach unten gerichtet einsetzen.

3 Die Knopfzellen-Halterung wieder in die Fernbedienung einsetzen.

- Wenn die Knopfzelle erschöpft ist, durch eine neue vom Typ CR2025 ersetzen.
  (Die Lebensdauer der Knopfzelle beträgt ca. 1 Jahr. Dies hängt jedoch von der Häufigkeit des Einsatzes ab.)

♦ **Die Knopfzelle außer Reichweite von Kindern halten.**

♦ Beim Einsetzen der Knopfzelle auf richtige Polarität achten.

VORSICHT

Bei einer falsch eingesetzten Batterie besteht Explosionsgefahr. Nur mit einer vom Hersteller empfohlenen Batterie vom gleichen Typ ersetzen. Verbrauchte Batterien beim Fachhändler oder einer Sammelstelle für Sonderstoffe abliefern.

ENGLISH

Remote Controller (Continued)

■ Inserting the Button-type Battery

Insert the supplied button-type battery before using the Remote Controller.

1 Pull out the Battery Holder while sliding the Stopper with a pointed object in the direction of the arrow ❶.

2 Insert the button-type battery with the stamped (+) mark facing downward.

3 Insert the Battery Holder into the Remote Controller.

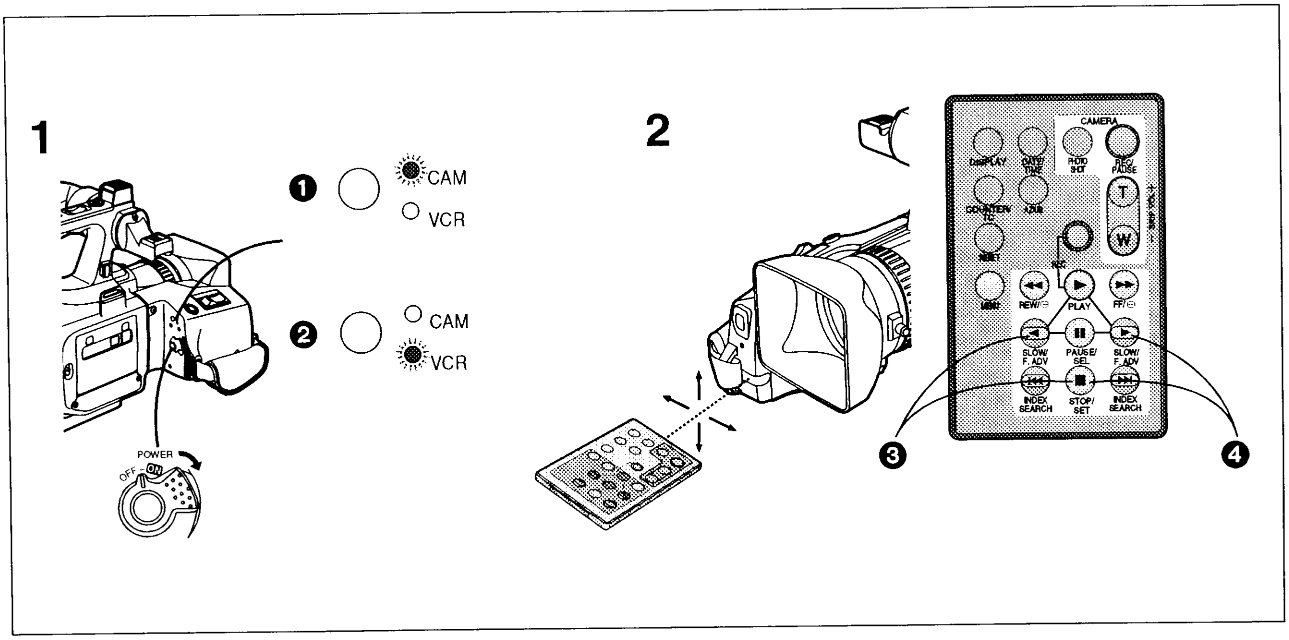
- When the button-type battery is exhausted, replace it with a new CR2025 battery.
  (The life of the battery is about 1 year. However, it depends on the frequency of use.)

♦ **Keep the button-type battery out of the reach of children.**

♦ Make sure you insert the battery with its poles correctly aligned.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.



DEUTSCH

■ Benutzen der Fernbedienung

1 Den Schalter [POWER] am Camerarecorder auf [ON] stellen.

- Wenn die Lampe [CAMERA] leuchtet, können Sie die Aufnahmefunktionen benutzen. ❶
- Wenn Sie die Wiedergabefunktionen benutzen möchten, drücken Sie die Taste [VCR/CAMERA], so daß die Lampe [VCR] aufleuchtet. ❷

2 Die Fernbedienung auf den Fernbedienungs-Sensor am Camerarecorder richten und die entsprechende Taste drücken.

Entfernung zum Camerarecorder: Weniger als 5 Meter.
Winkel: Ca. 15° aufwärts, abwärts, links und rechts von der Mittelachse.

- ♦ Der vorstehend beschriebene Bedienungsbereich gilt für die Benutzung im Hause.
  Bei der Benutzung im Freien oder unter starker Beleuchtung ist u. U. korrektes Funktionieren auch in diesem Bereich nicht gewährleistet.
- Innerhalb eines Abstandes von 1 Meter kann die Fernbedienung auch von der Seite des Camerarecorders (LCD-Monitor-Seite) benutzt werden.

Wählen des Fernbedienungs-Modus

Bei gleichzeitiger Benutzung von zwei Camerarecordern können Sie unterschiedliche Fernbedienungs-Modi wählen, damit Sie beide individuell fernbedienen können.

- ♦ Wenn an der Fernbedienung und am Camerarecorder nicht der gleiche Fernbedienungs-Modus gewählt ist, erscheint die Anzeige [REMOTE].
- ♦ Beim Auswechseln der Knopfzelle in der Fernbedienung wird sie automatisch auf den Modus [VCR1] umgeschaltet.
- [REMOTE] im Menü auf den gewünschten Fernbedienungs-Modus einstellen. (➜ 122-128)

❸ **Die Taste [◂I] und die Taste [■] gleichzeitig drücken.**
Dadurch wird der Modus [VCR2] gewählt.

❹ **Die Taste [I▸] und die Taste [■] gleichzeitig drücken.**
Dadurch wird der Modus [VCR1] gewählt.

ENGLISH

■ Using the Remote Controller

1 Set the [POWER] Switch on the Camera Recorder to [ON].

- When the [CAMERA] Lamp lights, you can use the recording functions. ❶
- If you want to use the playback functions, press the [VCR/CAMERA] Button so that the [VCR] Lamp lights. ❷

2 Aim the Remote Controller at the Remote Control Sensor on the Camera Recorder and press the appropriate button.

Distance to the Camera Recorder: Less than 5 metres.
Angle: Approximately 15° up, down, left and right from centre axis.

- ♦ The operative range described above is valid for using the Remote Controller indoors.
  When using it outdoors or under strong lights, it may not work correctly even within the above range.
- Within a distance of about 1 metre, it is also possible to use the Remote Controller from the side (LCD Monitor side).

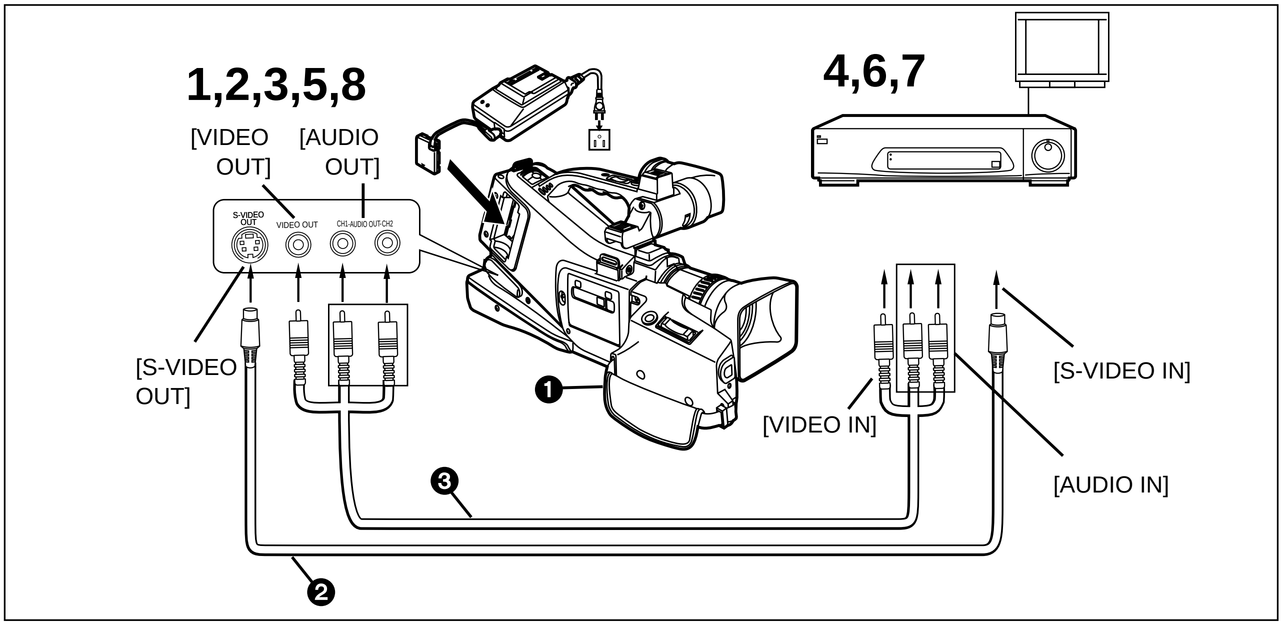
Selecting the Remote Controller Mode

When using two Camera Recorders at the same time, selecting different Remote Controller Modes makes it possible to operate them separately.

- ♦ If the Remote Controller Mode set on the Camera Recorder and on its Remote Controller are not matched, the [REMOTE] Indication appears.
- ♦ Replacing the button-type battery in the Remote Controller automatically resets it to the [VCR1] Mode.
- Set [REMOTE] on the Menu to the desired Remote Controller Mode. (➜ 122-128)

❸ **Press the [◂I] Button and the [■] Button simultaneously.**
This selects the [VCR2] Mode.

❹ **Press the [I▸] Button and the [■] Button simultaneously.**
This select the [VCR1] Mode.



DEUTSCH

Kopieren auf eine S-VHS- oder VHS-Cassette (Kopieren)

- Vor dem Kopieren die Taste [DISPLAY] (➜ 58) auf der Fernbedienung drücken, so daß keine Anzeigen eingeblendet sind. Ansonsten werden beim Kopieren auch die Zählwerk-Anzeige und andere Funktionsanzeigen auf die Cassette aufgezeichnet.

1 Camerarecorder:
Den Schalter [POWER] auf [ON] stellen.

2 Camerarecorder:
Die bespielte Cassette einsetzen.

3 Camerarecorder:
Die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] aufleuchtet.

4 Videorecorder:
Eine unbespielte Cassette mit intakter Löschschutzlasche einsetzen.
Da am Videorecorder gewisse Einstellungen (AV-Eingang, Bandgeschwindigkeit usw.) nötig sind, lesen Sie bitte die Bedienungsanleitung des Videorecorders.

5 Camerarecorder:
Die Wiedergabe-Taste [▶] drücken, um die Wiedergabe zu starten.

6 Videorecorder:
Die Aufnahme starten.

7 Videorecorder:
Die Pausen- oder Stopp-Taste drücken, um die Aufnahme zu stoppen.

8 Camerarecorder:
Die Stopp-Taste [■] drücken, um die Wiedergabe zu stoppen.

❶ AG-DVC15
❷ S-Video-Kabel
❸ AV-Kabel

ENGLISH

Copying onto an S-VHS (or VHS) Cassette (Dubbing)

- Before copying, press the [DISPLAY] Button on the Remote Controller (➜ 58) so that no indications appear. Otherwise, the Counter Indication and function indications are also recorded onto the cassette.

1 Camera Recorder:
Set the [POWER] Switch to [ON].

2 Camera Recorder:
Insert the recorded cassette.

3 Camera Recorder:
Press the [VCR/CAMERA] Button so that the [VCR] Lamp lights.

4 VCR:
Insert an unrecorded cassette with intact erasure prevention tab.
As some settings (external input, tape speed, etc.) on the VCR are necessary, please refer to your VCR's operating instructions.

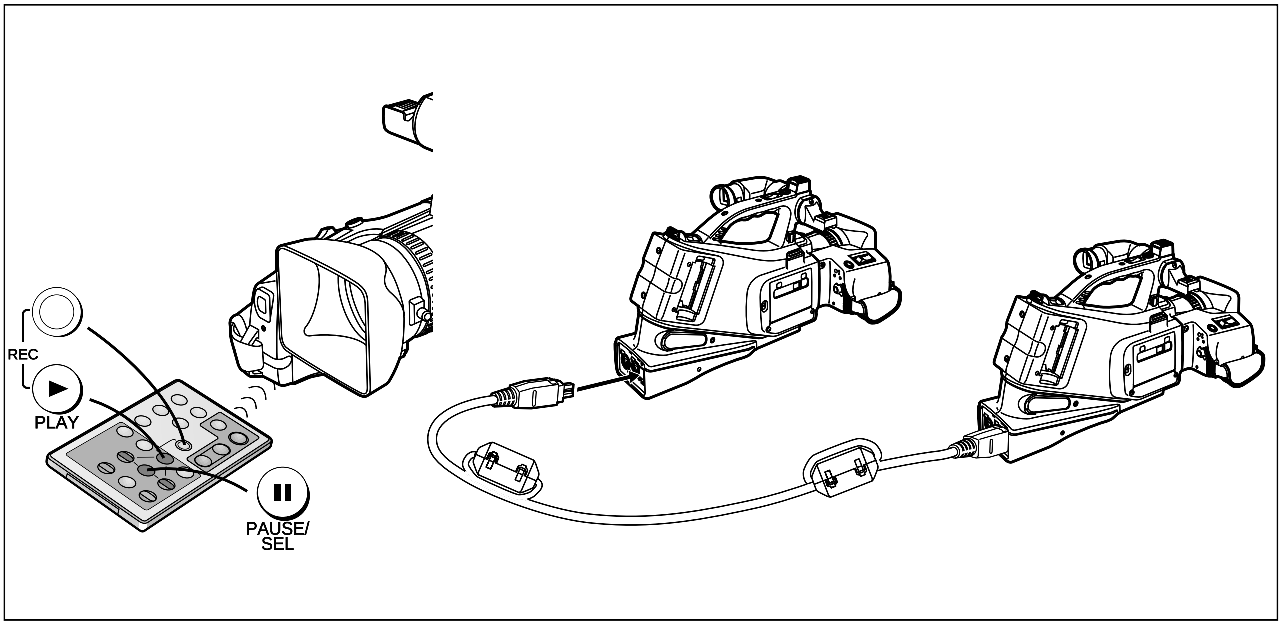
5 Camera Recorder:
Press the Play Button [▶] to start playback.

6 VCR:
Start recording.

7 VCR:
Press the Pause or Stop Button to stop recording.

8 Camera Recorder:
Press the Stop Button [■] to stop playback.

❶ AG-DVC15
❷ S-Video Cable
❸ AV Cable



DEUTSCH

Einsatz zusammen mit digitalen Videogeräten (Aufnahme)

Wenn Sie diesen Camerarecorder über das DV-Kabel (Sonderzubehör) mit einem anderen digitalen Videogerät (beispielsweise einem anderen Camerarecorder vom gleichen Typ) verbinden, der mit einer DV-Eingangs-/Ausgangsbuchse ausgestattet ist, können Sie hochqualitatives Überspielen von Bild und Ton durchführen. Die Fernbedienung wird benötigt, um mit dem AG-DVC15 aufzunehmen.

1. **[Wiedergabegerät]**
   Die bespielte Cassette einsetzen und die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] aufleuchtet.
2. **[Aufnahmegerät]**
   Eine Cassette einsetzen, auf welche die Überspielung gemacht werden soll, und dann die Taste [VCR/CAMERA] drücken, damit die Lampe [VCR] aufleuchtet.
3. **[Wiedergabegerät]**
   Die Wiedergabetaste [▶] drücken, um die Wiedergabe zu starten.
4. **[Aufnahmegerät]**
   Die Taste [REC] gedrückt halten und gleichzeitig die Taste [PLAY] (beide auf der Fernbedienung) drücken.
   Die Aufnahme beginnt.

Beenden der Aufnahme

Die Pausentaste [❚❚] oder die Stopp-Taste [■] drücken, um die Aufnahme zu stoppen.

- Die Aufnahme auf dem Aufnahmegerät wird im gleichen Tonaufnahme-Modus wie die Wiedergabe, unabhängig von der im Menü des Aufnahmegerätes gewählten Einstellung für [AUDIO REC].
- Im unteren Teil des Bildes (LCD-Monitor oder Sucher des Aufnahmegerätes oder angeschlossenes Fernsehgerät) können Bildstörungen auftreten, oder das Bild kann vertikal schwanken. Dies ist jedoch keine Funktionsstörung und hat keinen Einfluß auf die effektive Aufzeichnung.
- Beim Überspielen eines unbespielten Bandabschnittes wird ein Störbild aufgezeichnet.

ENGLISH

Using with Digital Video Equipment
(Recording)

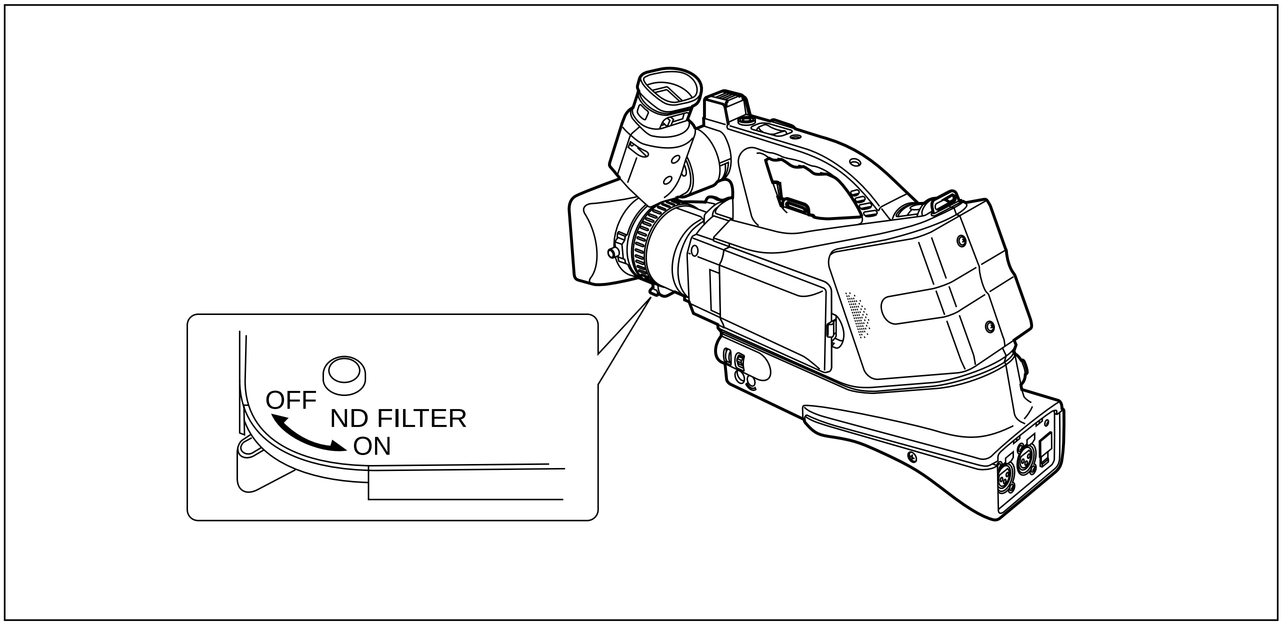
If you connect this Camera Recorder with other Digital Video equipment (for example another Camera Recorder of the same type) equipped with DV Input/Output Terminal using the DV Cable (optional), you can dub high-quality picture and sound in the digital format. The remote controller is necessary to record with the AG-DVC15.

1. **[Playback Unit]**
   Insert the recorded cassette and press the [VCR/CAMERA] Button so that the [VCR] Lamp lights.
2. **[Recording Unit]**
   Insert a cassette onto which you want to perform dubbing and press the [VCR/CAMERA] Button so that the [VCR] Lamp lights.
3. **[Playback Unit]**
   Press the Play Button [▶] to start playback.
4. **[Recording Unit]**
   While pressing the [REC] Button, press the [PLAY] Button (both on the Remote Controller).
   Recording starts.

Stopping Recording

Press the Pause Button [❚❚] or the Stop Button [■] to stop recording.

- The recording is made in the same audio recording mode as the playback, regardless of the selected setting for [AUDIO REC] made on the recording unit.
- On the recording unit (LCD Monitor or Finder) or on a connected TV, the picture may contain distortion or may shake vertically. However, this is not a malfunction and does not affect the actual recording.
- During dubbing of an unrecorded part of the tape, picture noise is recorded.



DEUTSCH

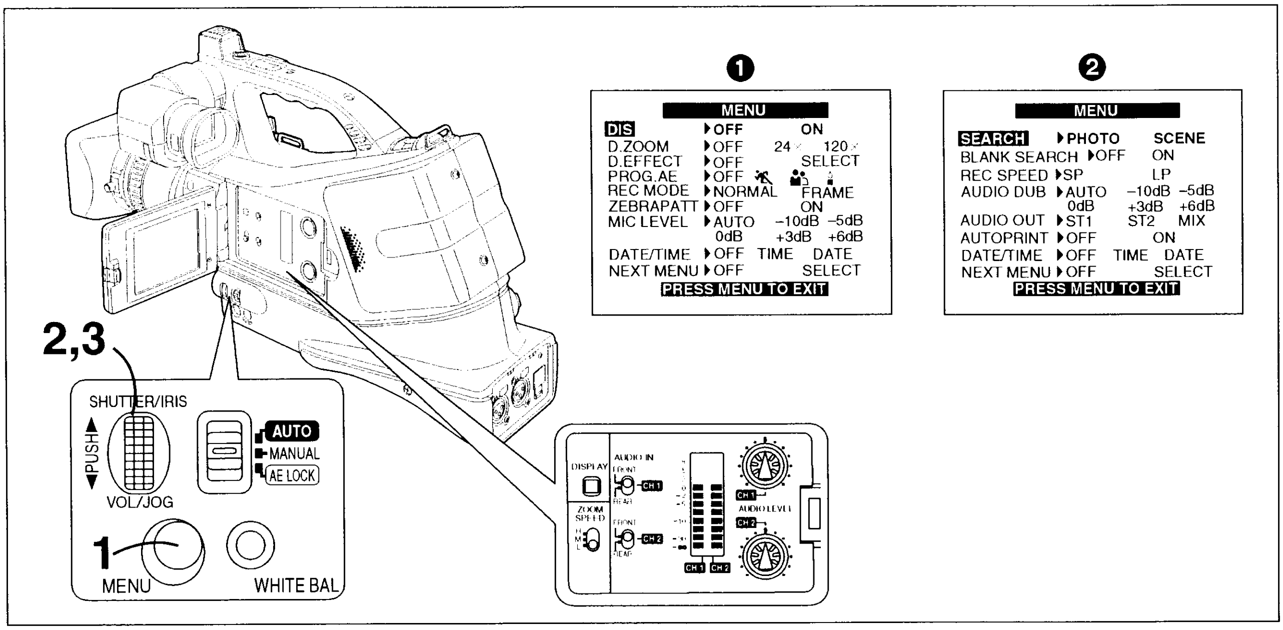
ND-Filter

- Dieses Filter reduziert die Lichtmenge auf etwa 1/8, ohne die Farben zu beeinflussen.
- Die Schärfentiefe wird geringfügig reduziert.
- Weißabgleich ist auch mit dem Filter möglich. Wird jedoch bei Verwendung des ND-Filters mit Weißabgleich-Automatik aufgenommen, erhält man eventuell keine genaue Weißabgleich-Einstellung. Daher ist es empfehlenswert, bei Aufnahmen mit dem ND-Filter den manuellen Weißabgleich zu verwenden.
- Wird bei Aufnahmen mit Filter auf die extreme Weitwinkel-Stellung gezoomt, können die vier Ecken des Bilds dunkel werden (Vignettierungseffekt).
- Beachten Sie, dass keine Anzeige im Sucher erscheint, selbst wenn das ND-Filter hinzugeschaltet wird.

ENGLISH

ND Filter

- This filter reduces the amount of light to approximately 1/8th but does not affect the colors.
- The depth of field is slightly reduced.
- White balance adjustment is possible even with the tilter. However, when using the ND Filter and recording with Auto White Balance, the white balance adjustment may not be precise. Therefore, we recommend that you use the Manual White Balance Mode when recording with the ND Filter.
- When you record with a filter and zoom to the extreme wide-angle setting, the four corners of the picture may become dark (vignetting effect).
- Note that even if the ND filter is set ON, nothing will appear in the viewfinder.


2,3
SHUTTER/IRIS
▲PUSH▼
VOL/JOG
AUTO
MANUAL
AE LOCK
1
MENU
WHITE BAL
DISPLAY
ZOOM SPEED
AUDIO IN
FRONT
REAR
CH1
CH2
AUDIO LEVEL
❶
MENU
DIS ▶OFF ON
D.ZOOM ▶OFF 24× 120×
D.EFFECT ▶OFF SELECT
PROG.AE ▶OFF
REC MODE ▶NORMAL FRAME
ZEBRAPATT ▶OFF ON
MIC LEVEL ▶AUTO −10dB −5dB 0dB +3dB +6dB
DATE/TIME ▶OFF TIME DATE
NEXT MENU ▶OFF SELECT
PRESS MENU TO EXIT
❷
MENU
SEARCH ▶PHOTO SCENE
BLANK SEARCH ▶OFF ON
REC SPEED ▶SP LP
AUDIO DUB ▶AUTO −10dB −5dB 0dB +3dB +6dB
AUDIO OUT ▶ST1 ST2 MIX
AUTOPRINT ▶OFF ON
DATE/TIME ▶OFF TIME DATE
NEXT MENU ▶OFF SELECT
PRESS MENU TO EXIT

DEUTSCH

Benutzen des Menüs

1 Die Taste [MENU] drücken.

Das Menü erscheint.
Den [DISPLAY] drücken wenn das Menü nicht auf dem LCD-Monitor erscheint.

2 Den Regler [PUSH] drehen, um den gewünschten Einstellpunkt zu wählen.

Beim Drehen des Reglers [PUSH] bewegt sich der Leuchtblock zum nächsten Einstellpunkt.

3 Den Regler [PUSH] drücken, um den gewählten Einstellpunkt auf die gewünschte Einstellung einzustellen.

Bei jedem Druck bewegt sich der Cursor [▶] zum nächsten Modus.

Einblenden des Menüs für die Aufnahmefunktionen ❶

Im Aufnahmepause-Modus die Taste [MENU] drücken.

- Solange das Menü eingeblendet ist, können Sie nicht aufnehmen.
- Während des Aufnehmens können Sie das Menü nicht einblenden.

Einblenden des Menüs für die Wiedergabe-Funktionen ❷

Die Taste [MENU] drücken, wenn die Lampe [VCR] leuchtet.

- Solange das Menü eingeblendet ist, können Sie nicht wiedergeben.
- Sie Können das Menü aber auch während der Wiedergabe einblenden.

Ausblenden des Menüs

Die Taste [MENU] erneut drücken.
Beim Wählen der Menümode setzt sich die Menümode fort, wenn auch das Menüanzeige vom Anzeigeknopf gelöscht wird.

Hinweise zu den im Menü gemachten Einstellungen

Die Einstellungen, die Sie im Menü gewählt haben, werden auch beim Ausschalten des Camerarecorders beibehalten. Wenn Sie jedoch die Stromversorgungseinheit (Akku, Netzadapter) vom Camerarecorder trennen, bevor Sie diesen ausschalten, werden die gewählten Einstellungen u. U. nicht beibehalten.

ENGLISH

Using the Menu Screen

1 Press the [MENU] Button.

The Menu appears.
Press the [DISPLAY] Button when the menu does not appear on the LCD monitor.

2 Turn the [PUSH] Dial to select the item to be set.

Turning the [PUSH] Dial changes the highlighted item.

3 Press the [PUSH] Dial to set the selected item to the desired mode.

Every press moves the cursor [▶] to the next mode.

Displaying the Camera Mode Menu ❶

Press the [MENU] Button in the Recording Pause Mode.

- While the Menu is displayed, recording is not possible.
- During recording, displaying the Menu is not possible.

Displaying the VCR Mode Menu ❷

Press the [MENU] Button when the [VCR] Lamp is lit.

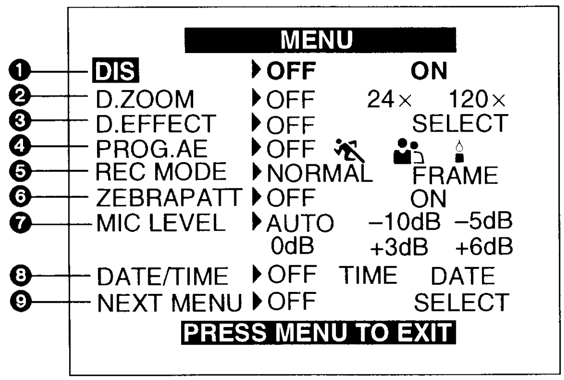
- While the Menu is displayed, playback is not possible.
- During playback, displaying the Menu is possible.

Exiting the Menu

Press the [MENU] Button again.
With menu mode selected, the menu mode will continue even when the menu display is deleted by the Display Button.

Note About the Settings Made on the Menu

The settings you selected on the Menu are maintained when you turn the Camera Recorder off. However, if you disconnect the power supply unit (Battery or AC Adapter) from the Camera Recorder before turning it off, the selected settings may not be maintained.


MENU
① DIS ▶OFF ON
② D.ZOOM ▶OFF 24× 120×
③ D.EFFECT ▶OFF SELECT
④ PROG.AE ▶OFF
⑤ REC MODE ▶NORMAL FRAME
⑥ ZEBRAPATT ▶OFF ON
⑦ MIC LEVEL ▶AUTO −10dB −5dB 0dB +3dB +6dB
⑧ DATE/TIME ▶OFF TIME DATE
⑨ NEXT MENU ▶OFF SELECT
PRESS MENU TO EXIT

DEUTSCH

Menü-Funktionen

Menü für die Aufnahmefunktionen

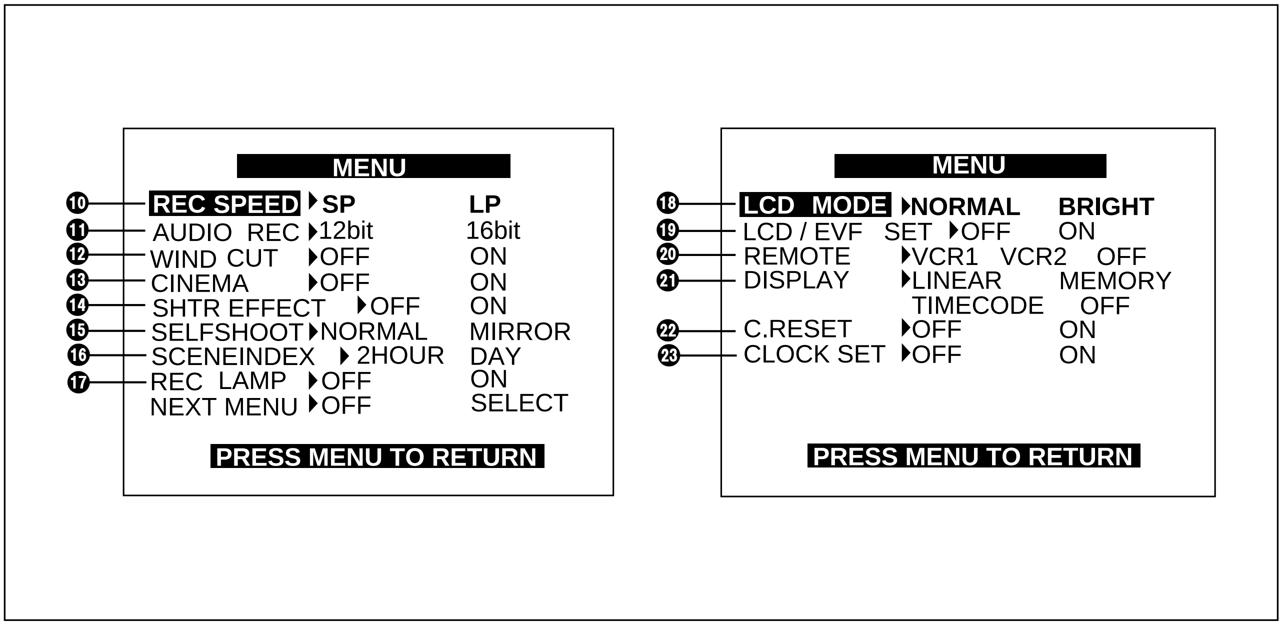
- ❶ **Digital-Bildstabilisator [DIS] (→ 48)**
- ❷ **Digital-Zoom [D.ZOOM] (→ 42)**
- ❸ **Digital-Effekte [D.EFFECT] (→ 80, 82, 84)**
- ❹ **Belichtungsautomatik-Programm-Modi [PROG.AE] (→ 74)**
- ❺ **Aufnahme-Modus [REC MODE] (→ 98)**
- ❻ **Zebramuster [ZEBRAPATT] (→ 96)**
- ❼ **Audiopegel [MIC LEVEL] (→ 100)**
- ❽ **Datums- und Uhrzeit-Anzeige [DATE/TIME] (→ 50)**
- ❾ **Weitere Einstellpunkte [NEXT MENU] (→ 126)**
  Wenn Sie [NEXT MENU] auf [SELECT] einstellen, erscheint das nächste Menu.

ENGLISH

Menu Functions

Camera Mode Menu

- ❶ **Digital Image Stabilizer [DIS] (→ 48)**
- ❷ **Digital Zoom [D.ZOOM] (→ 42)**
- ❸ **Digital Effects [D.EFFECT] (→ 80, 82, 84)**
- ❹ **Auto Exposure Modes [PROG.AE] (→ 74)**
- ❺ **Recording Mode [REC MODE] (→ 98)**
- ❻ **Zebra Pattern [ZEBRAPATT] (→ 96)**
- ❼ **Audio Level [MIC LEVEL] (→ 100)**
- ❽ **Date and Time Indication [DATE/TIME] (→ 50)**
- ❾ **Other Items [NEXT MENU] (→ 126)**
  If you set [NEXT MENU] to [SELECT], the next menu appears.


MENU
⑩ REC SPEED ▶SP LP
⑪ AUDIO REC ▶12bit 16bit
⑫ WIND CUT ▶OFF ON
⑬ CINEMA ▶OFF ON
⑭ SHTR EFFECT ▶OFF ON
⑮ SELFSHOOT ▶NORMAL MIRROR
⑯ SCENEINDEX ▶2HOUR DAY
⑰ REC LAMP ▶OFF ON
NEXT MENU ▶OFF SELECT
PRESS MENU TO RETURN
MENU
⑱ LCD MODE ▶NORMAL BRIGHT
⑲ LCD / EVF SET ▶OFF ON
⑳ REMOTE ▶VCR1 VCR2 OFF
㉑ DISPLAY ▶LINEAR MEMORY
TIMECODE OFF
㉒ C.RESET ▶OFF ON
㉓ CLOCK SET ▶OFF ON
PRESS MENU TO RETURN

DEUTSCH

⑩ **Aufnahmegeschwindigkeits-Modus [REC SPEED] (➜ 28)**

⑪ **Tonaufnahme-Modus [AUDIO REC] (➜ 102)**

⑫ **Windschutzfilter [WIND CUT]**
Wenn Sie [WIND CUT] auf [ON] stellen, werden Windgeräusche unterdrückt. Dies hat jedoch auch eine geringe Verschlechterung der Tonwiedergabe im Baßbereich zur Folge.

⑬ **Aufnahme im Kinoformat-Modus [CINEMA] (➜ 46)**

⑭ **Verschlußeffekt [SHTR EFFECT] (➜ 44)**

⑮ **Selbstaufnahme [SELFSHOOT] (➜ 38)**

⑯ **Szenen-Index-Modus [SCENEINDEX] (➜ 66)**

⑰ **Aufnahme-Anzeigelampe [REC LAMP] (➜ 34)**

⑱ **LCD-Beleuchtungsmodus [LCD MODE] (➜ 134)**

⑲ **LCD- und Sucher-Einstellung [LCD/EVF SET] (➜ 134)**

⑳ **Fernbedienungs-Modus [REMOTE] (➜ 114)**

㉑ **Zählwerkanzeige-Modus [DISPLAY] (➜ 166)**

㉒ **Zählwerk-Rückstellung [C.RESET] (➜ 158)**
Zum Zurückstellen des Zählwerkes auf Null.
Der Timecode kann jedoch nicht auf Null zurückgestellt werden.

㉓ **Datums- und Uhrzeit-Einstellung [CLOCK SET] (➜ 130)**

ENGLISH

⑩ **Recording Speed Mode [REC SPEED] (➜ 28)**

⑪ **Audio Recording Mode [AUDIO REC] (➜ 102)**

⑫ **Wind Buffer [WIND CUT]**
If you set [WIND CUT] to [ON], the noise of the wind hitting the Microphone is reduced. However, this also causes a slight deterioration of the sound reproduction in the bass range.

⑬ **Cinema-like Format Recording [CINEMA] (➜ 46)**

⑭ **Shutter Effect [SHTR EFFECT] (➜ 44)**

⑮ **Self-Recording [SELFSHOOT] (➜ 38)**

⑯ **Scene Index Mode [SCENEINDEX] (➜ 66)**

⑰ **Recording Lamp [REC LAMP] (➜ 34)**

⑱ **LCD Lighting Mode [LCD MODE] (➜ 134)**

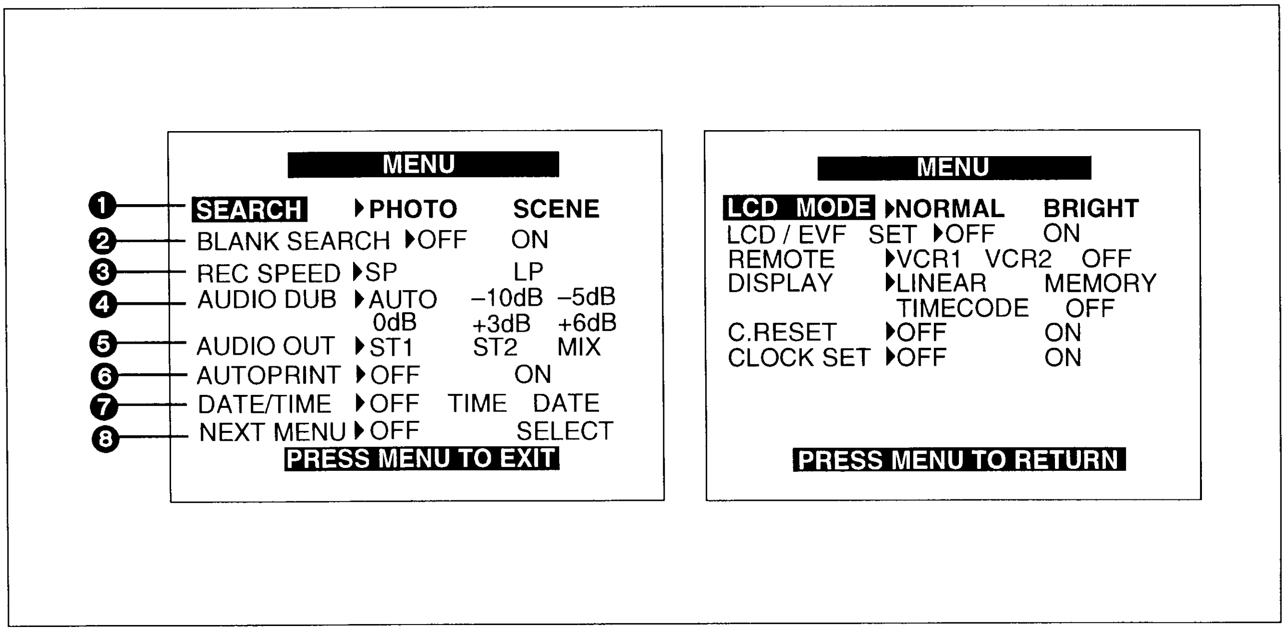
⑲ **LCD and Finder Adjustment [LCD/EVF SET] (➜ 134)**

⑳ **Remote Controller Mode [REMOTE] (➜ 114)**

㉑ **Counter Display Mode [DISPLAY] (➜ 166)**

㉒ **Counter Reset [C.RESET] (➜ 158)**
To reset the counter to zero.
However, the Time Code cannot be reset.

㉓ **Date and Time Setting [CLOCK SET] (➜ 130)**



MENU
❶ SEARCH ▶PHOTO SCENE
❷ BLANK SEARCH ▶OFF ON
❸ REC SPEED ▶SP LP
❹ AUDIO DUB ▶AUTO −10dB −5dB 0dB +3dB +6dB
❺ AUDIO OUT ▶ST1 ST2 MIX
❻ AUTOPRINT ▶OFF ON
❼ DATE/TIME ▶OFF TIME DATE
❽ NEXT MENU ▶OFF SELECT
PRESS MENU TO EXIT
MENU
LCD MODE ▶NORMAL BRIGHT
LCD / EVF SET ▶OFF ON
REMOTE ▶VCR1 VCR2 OFF
DISPLAY ▶LINEAR MEMORY TIMECODE OFF
C.RESET ▶OFF ON
CLOCK SET ▶OFF ON
PRESS MENU TO RETURN

DEUTSCH

Menü für die Wiedergabe-Funktionen

❶ **Index-Suchlauf [SEARCH] (➔ 68, 70)**

❷ **Leerstellen-Suchlauf [BLANK SEARCH] (➔ 64)**

❸ **Aufnahmegeschwindigkeits-Modus [REC SPEED] (➔ 28)**

❹ **Audiopegel [AUDIO DUB] (➔ 100)**

❺ **Audio-Ausgangsmodus [AUDIO OUT] (➔ 104)**

❻ **Automatik-Druck [AUTOPRINT]***

❼ **Datums- und Uhrzeit-Anzeige [DATE/TIME] (➔ 50)**

❽ **Weitere Einstellpunkte [NEXT MENU]**
Wenn Sie [NEXT MENU] auf [SELECT] einstellen, erscheint das nächste Menu. Dieses Menü ist gleich wie das dritte Menü für die Aufnahmefunktionen. (➔ 126)

***Dieser Menüpunkt funktioniert nicht.**

ENGLISH

VCR Mode Menu

❶ **Index Search [SEARCH] (➔ 68, 70)**

❷ **Blank Search [BLANK SEARCH] (➔ 64)**

❸ **Recording Speed Mode [REC SPEED] (➔ 28)**

❹ **Audio Level [AUDIO DUB] (➔ 100)**

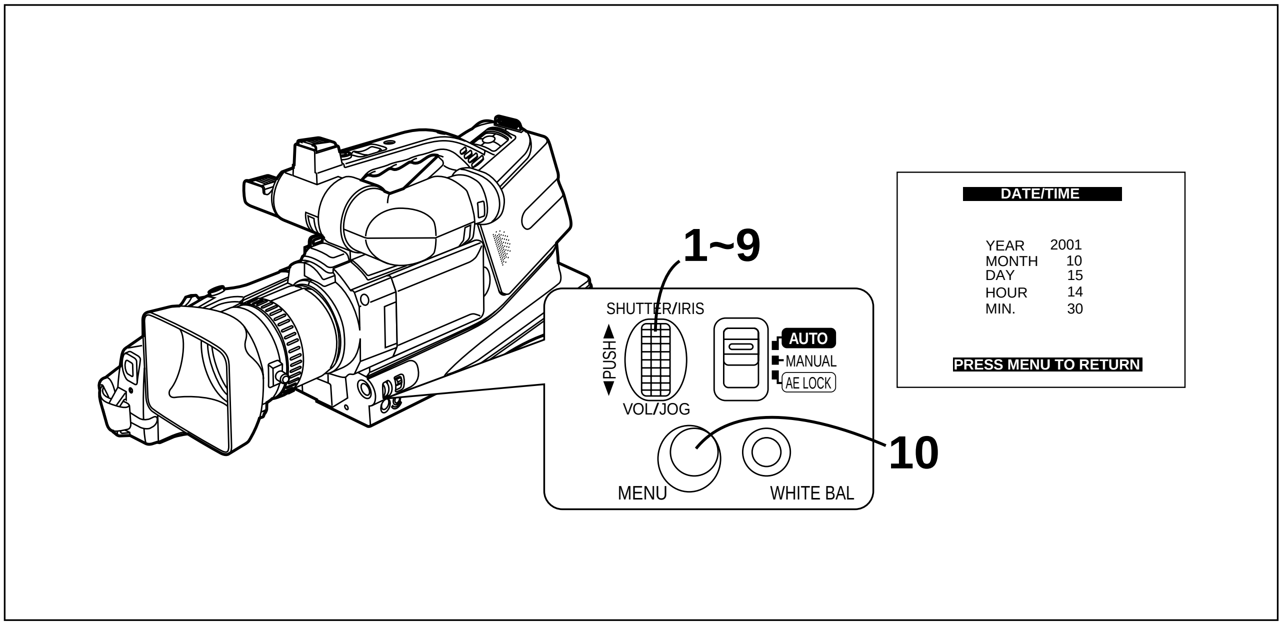
❺ **Audio Output Mode [AUDIO OUT] (➔ 104)**

❻ **Automatic Printing [AUTOPRINT]***

❼ **Date and Time Indication [DATE/TIME] (➔ 50)**

❽ **Other Items [NEXT MENU]**
If you set [NEXT MENU] to [SELECT], the next menu appears. This is the same menu as the third menu of the Camera Mode. (➔ 126)

***This menu item does not function.**



DATE/TIME

YEAR 2001
MONTH 10
DAY 15
HOUR 14
MIN. 30

PRESS MENU TO RETURN

DEUTSCH

Einstellen von Datum und Uhrzeit

Beim Wählen von [NEXT MENU] im Menü (entweder im Menü für die Aufnahmefunktionen oder im Menü für die Wiedergabe-Funktionen) und anschließendem Einstellen von [CLOCK SET] auf [ON] wird das oben gezeigte Menü angezeigt. (➜ 126)

Beispiel: Einstellen der Uhr auf 15. Oktober 2001, 14:30 Uhr

1. **Den Regler [PUSH] drehen, um auf [2001] einzustellen.**
2. **Den Regler [PUSH] drücken, um [MONTH] (Monat) zu wählen.**
3. **Den Regler [PUSH] drehen, um auf [10] einzustellen.**
4. **Den Regler [PUSH] drücken, um [DAY] (Tag) zu wählen.**
5. **Den Regler [PUSH] drehen, um auf [15] einzustellen.**
6. **Den Regler [PUSH] drücken, um [HOUR] (Stunde) zu wählen.**
7. **Den Regler [PUSH] drehen, um auf [14] einzustellen.**
8. **Den Regler [PUSH] drücken, um [MIN.] (Minute) zu wählen.**
9. **Den Regler [PUSH] drehen, um auf [30] einzustellen.**
10. **Die Taste [MENU] drücken, um das Einstellen von Datum und Uhrzeit zu beenden.**
    Die Uhr läuft an von [00] Sekunden.

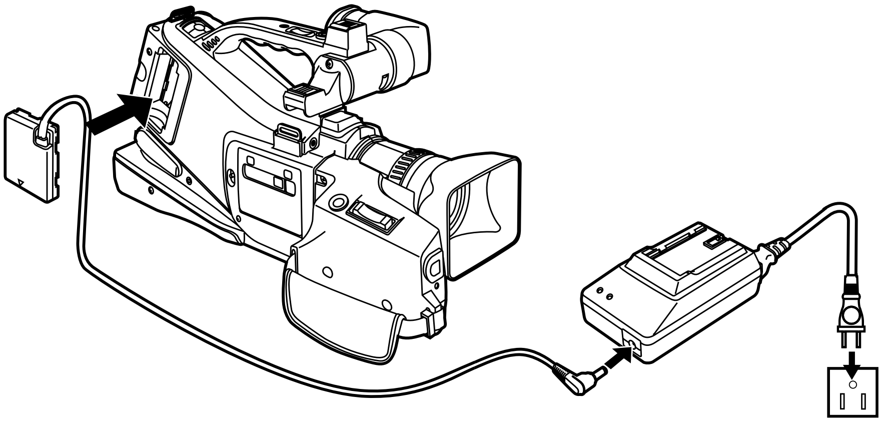
ENGLISH

Setting the Date and Time

Selecting [NEXT MENU] on the Menu (either Camera Mode Menu or VCR Mode Menu) and setting [CLOCK SET] to [ON] displays the menu shown above. (➜ 126)

For example: To set the clock to 15th October 2001, 14:30.

1. **Turn the [PUSH] Dial to set to [2001].**
2. **Press the [PUSH] Dial to select [MONTH].**
3. **Turn the [PUSH] Dial to set to [10].**
4. **Press the [PUSH] Dial to select [DAY].**
5. **Turn the [PUSH] Dial to set to [15].**
6. **Press the [PUSH] Dial to select [HOUR].**
7. **Turn the [PUSH] Dial to set to [14].**
8. **Press the [PUSH] Dial to select [MIN.].**
9. **Turn the [PUSH] Dial to set to [30].**
10. **Press the [MENU] Button to finish the date and time setting.**
    The operation of the clock starts from [00] seconds.



DEUTSCH

- Da geringfügige Abweichungen in der Zeitanzeige auftreten können, empfehlen wir Ihnen, vor dem Aufnahmebeginn zu prüfen, ob die Uhrzeit im Camerarecorder korrekt ist. Wenn die Anzeige [⊘] erscheint, muß die eingebaute Lithium-Batterie aufgeladen und das Datum und die Uhrzeit neu eingestellt werden.
- Die Jahre wechseln in folgender Reihenfolge: 1990 → 1991 → ... → 2089 →1990 →..

Aufladen der eingebauten Lithium-Batterie

Die eingebaute Batterie versorgt die Uhr im Camerarecorder mit Strom. Wenn die Anzeige [⊘] erscheint, ist die eingebaute Batterie entladen. Die Batterie auf nachstehend beschriebene Weise aufladen und anschließend das Datum und die Uhrzeit neu einstellen.

1. **Den Netzadapter an den Camerarecorder und an eine Netzsteckdose anschließen. (➜ 20)**
2. **Den Camerarecorder ausgeschaltet lassen.**
3. **Den Camerarecorder während ca. 4 Stunden in diesem Zustand lassen.**
   Nach ca. 4stündigem Aufladen der eingebautem Lithium-Batterie kann sie den Betrieb der Uhr ca. 3 Monate lang aufrechterhalten.

ENGLISH

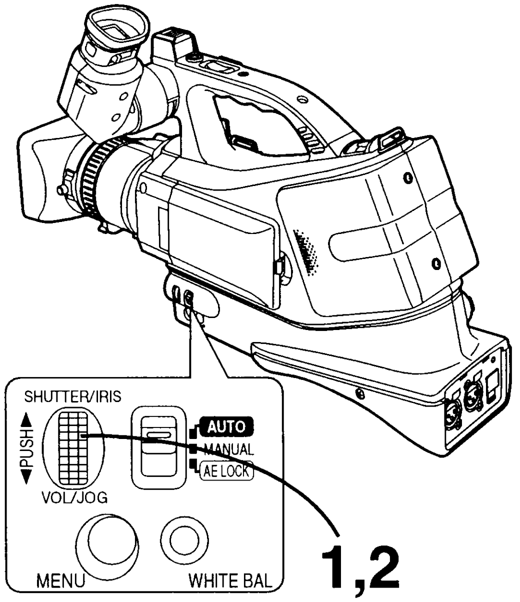
- As small imprecisions in the time indication can occur, we recommend that you confirm that the time shown is correct before you start recording. When the [⊘] Indication appears, charge the built-in lithium battery and set the date and time again.
- The years change in the following order: 1990 → 1991 → ... → 2089 →1990 →..

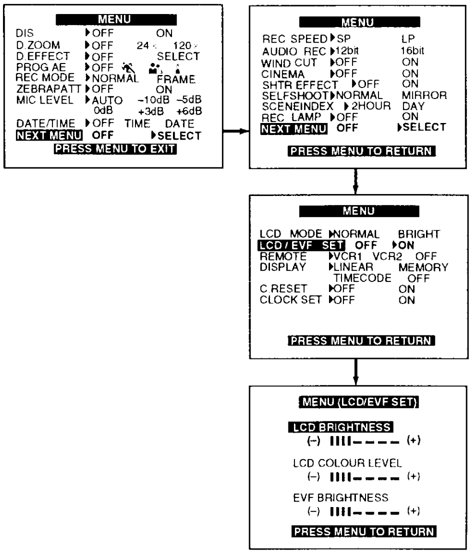
Charging the Built-in Lithium Battery

The built-in battery maintains the operation of the clock. When the [⊘] Indication appears, the built-in lithium battery is discharged. Charge the discharged battery in the following way and after charging is finished, set the date and time.

1. **Connect the AC Adapter to the Camera Recorder and to an AC mains socket. (➜ 20)**
2. **Leave the Camera Recorder turned off.**
3. **Leave the Camera Recorder in this condition for approximately 4 hours.**
   After charging for 4 hours, the built-in lithium battery can power the clock for approximately 3 months.

WARNING
THE LITHIUM BATTERY IN THIS EQUIPMENT MUST ONLY BE REPLACED BY QUALIFIED PERSONNEL. WHEN NECESSARY, CONTACT YOUR LOCAL PANASONIC SUPPLIER.





```
MENU
DIS          ▶OFF       ON
D.ZOOM       ▶OFF   24×    120×
D.EFFECT     ▶OFF       SELECT
PROG.AE      ▶OFF
REC MODE     ▶NORMAL    FRAME
ZEBRAPATT    ▶OFF       ON
MIC LEVEL    ▶AUTO  -10dB  -5dB
              0dB   +3dB   +6dB
DATE/TIME    ▶OFF  TIME   DATE
NEXT MENU     OFF      ▶SELECT
PRESS MENU TO EXIT
```

```
MENU
REC SPEED  ▶SP          LP
AUDIO REC  ▶12bit       16bit
WIND CUT   ▶OFF         ON
CINEMA     ▶OFF         ON
SHTR EFFECT  ▶OFF       ON
SELFSHOOT  ▶NORMAL      MIRROR
SCENEINDEX  ▶2HOUR      DAY
REC LAMP   ▶OFF         ON
NEXT MENU   OFF        ▶SELECT
PRESS MENU TO RETURN
```

```
MENU
LCD MODE     ▶NORMAL     BRIGHT
LCD / EVF SET  OFF    ▶ON
REMOTE       ▶VCR1  VCR2  OFF
DISPLAY      ▶LINEAR     MEMORY
              TIMECODE    OFF
C.RESET      ▶OFF        ON
CLOCK SET    ▶OFF        ON
PRESS MENU TO RETURN
```

```
MENU (LCD/EVF SET)
LCD BRIGHTNESS
  (-) IIII---- (+)
LCD COLOUR LEVEL
  (-) IIII---- (+)
EVF BRIGHTNESS
  (-) IIII---- (+)
PRESS MENU TO RETURN
```

DEUTSCH

Einstellen des LCD-Monitors

Beim Wählen von [NEXT MENU] im Menü (entweder im Menü für die Aufnahmefunktionen oder im Menü für die Wiedergabe-Funktionen) und anschließendem Einstellen von [LCD/EVF SET] auf [ON] werden die folgenden Einstellpunkte angezeigt. (➜ 122-128)

Helligkeit des LCD-Monitors [LCD BRIGHTNESS]
Zum Justieren der Helligkeit des Flüssigkristall-Bildschirms. Die Balkenanzeige ist in 8 Stufen unterteilt. Je mehr vertikale Balken sichtbar sind, desto heller ist der Bildschirm.

Farbsättigung des LCD-Monitors [LCD COLOUR LEVEL]
Zum Justieren der Intensität der Farben auf dem Flüssigkristall-Bildschirm. Die Balkenanzeige ist in 8 Stufen unterteilt. Je mehr vertikale Balken sichtbar sind, desto stärker sind die Farben.

Helligkeit des Sucherbildes [EVF BRIGHTNESS]
Zum Justieren der Helligkeit des Sucherbildes. Die Balkenanzeige ist in 8 Stufen unterteilt. Je mehr vertikale Balken sichtbar sind, desto heller ist das Sucherbild.

1 Den Regler [PUSH] drücken, um den gewünschten Einstellpunkt zu wählen.

2 Den Regler [PUSH] drehen. Durch Drehen werden mehr oder weniger vertikale Balken angezeigt.

Gesamthaftes Anheben der Helligkeit des LCD-Monitors

Durch Einstellen von [LCD MODE] im Menü auf [BRIGHT] wird der LCD-Monitor aufgehellt.

- Diese Einstellungen haben keinen Einfluß auf das aufgezeichnete Bild.

ENGLISH

Adjusting the LCD Monitor

Selecting [NEXT MENU] on the Menu (either Camera Mode Menu or VCR Mode Menu) and setting [LCD/EVF SET] to [ON] displays the following items. (➜ 122-128)

LCD Brightness [LCD BRIGHTNESS]
To adjust the brightness of the LCD screen. The Bar Indication is divided into 8 steps. The more vertical bars are shown, the brighter is the screen.

LCD Colour Level [LCD COLOUR LEVEL]
To adjust the colour saturation of the LCD screen. The Bar Indication is divided into 8 steps. The more vertical bars are shown, the stronger are the colours.

Finder Brightness [EVF BRIGHTNESS]
To adjust the brightness of the Finder. The Bar Indication is divided into 8 steps. The more vertical bars are shown, the brighter is the screen.

1 Press the [PUSH] Dial to select the item that you want to adjust.

2 Turn the [PUSH] Dial. Turning it increases or decreases the number of vertical bars of the Bar Indication.

Boosting the Brightness of the Whole LCD Monitor

Setting [LCD MODE] on the Menu to [BRIGHT] brightens up the LCD Monitor.

- These adjustments have no influence on the actually recorded picture.

Vorsichtshinweise für den Betrieb

Beim Einsatz im Regen und Schnee oder am Strand darauf achten, daß nie Wasser in den Camerarecorder eindringt.

- Das Eindringen von Wasser könnte den Camerarecorder und die Cassette ernsthaft beschädigen. (Solche Schäden sind u. U. nicht reparierbar.)

Den Camerarecorder von magnetisierten Geräten (Fernsehgeräte, TV-Spiele usw.) fernhalten.

- Wenn Sie den Camerarecorder auf oder sehr nahe bei einem Fernsehgerät benutzen, können Bild und Ton durch elektromagnetische Strahlung gestört werden.
- Durch Lautsprecher und Elektromotoren erzeugte starke Magnetfelder können die Aufzeichnungen auf dem Band negativ beeinträchtigen und das Bild stören.
- Elektromagnetische Ausstrahlung von Mikroprozessoren können den Camerarecorder negativ beeinflussen und Bild- und Tonstörungen verursachen.
- Wenn der Camerarecorder durch magnetisierte Geräte negativ beeinflußt wird und nicht korrekt funktioniert, den Camerarecorder ausschalten, den Akku herausnehmen oder den Netzadapter vom Camerarecorder trennen. Anschließend den Akku wieder einsetzen bzw. den Netzadapter anschließen und den Camerarecorder wieder einschalten.

Den Camerarecorder nicht nahe bei einer Radio-Sendestation oder einer Hochspannungsleitung benutzen.

- Beim Aufnehmen nahe bei einer Radio-Sendestation oder einer Hochspannungsleitung können Störungen im aufgezeichneten Bild und Ton auftreten.

Beim Einsatz am Strand oder an ähnlichen Orten darauf achten, daß nicht Sand oder feiner Staub in den Camerarecorder eindringt.

- Sand und Staub können den Camerarecorder und die Cassette ernsthaft beschädigen. (Dieser Punkt ist auch beim Einsetzen und Herausnehmen der Cassette zu beachten.)

Hinweise zum Netzgerät

- Falls die Temperatur des Akkus extrem hoch oder niedrig ist, oder der Akku wegen langer Lagerung stark entladen ist, kann die Lampe [CHARGE] eine Zeitlang blinken, bevor der automatische Ladevorgang beginnt. Falls die Lampe [CHARGE] jedoch weiter blinkt, nachdem sich der Akku genügend abgekühlt bzw. erwärmt hat, kann eine Funktionsstörung im Akku oder im Netzgerät vorliegen. Wenden Sie sich in diesem Fall an Ihren Händler.
- Wenn der Akku warm ist, dauert der Ladevorgang länger als gewöhnlich.
- Wird das Netzgerät in der Nähe eines Radios benutzt, kann der Radioempfang gestört werden. Halten Sie das Netzgerät mehr als 1 Meter vom Radio entfernt.
- Das Netzgerät kann während des Betriebs ein surrendes Geräusch abgeben, was jedoch normal ist.

Cautions for Use

Take care that no water enters the Camera Recorder when using it in the rain and snow or on the beach.

- The Camera Recorder and the cassette could become damaged. (It might not be repairable.)

Keep the Camera Recorder away from magnetized equipment (TVs, TV games, etc.).

- If you use the Camera Recorder on or near a TV, the electromagnetic radiation may cause picture and sound distortion.
- Strong magnetic fields generated by speakers and large motors may damage the recordings on the tape and distort the picture.
- The electromagnetic radiation from micro-computers can adversely influence the Camera Recorder and cause picture and sound distortion.
- If the Camera Recorder is adversely influenced by magnetized equipment and does not work correctly, turn the Camera Recorder off, remove the Battery or disconnect the AC Adapter and insert the Battery or connect the AC Adapter again. Then turn the Camera Recorder on.

Do not use the Camera Recorder near a radio transmitter or high-voltage power line.

- If you record near a radio transmitter or high-voltage power line, the recorded picture and sound may be adversely influenced.

Take care that no sand and fine dust enters the Camera Recorder when using it on a beach or similar places.

- Sand and dust could damage the Camera Recorder and cassette. (Be careful when inserting and removing the cassette.)

Notes about the AC Adapter

- If the temperature of the Battery is extremely high or extremely low, or if the Battery is excessively discharged because of long storage, the [CHARGE] Lamp may flash for some time and charging will then start automatically.
  However, if the [CHARGE] Lamp continues to flash after the Battery has cooled down or warmed up sufficiently, some malfunction may have occurred in the Battery or in the AC Adapter. In this case, consult with your dealer.
- When the Battery is warm, charging takes longer than usual.
- When you use the AC Adapter near a radio, the radio reception may be distorted. Keep the AC Adapter more than 1 meter away from the radio.
- When the AC Adapter is in use, it may emit a whirring sound. However, this is normal.

Darauf achten, daß der Camerarecorder beim Tragen nicht fallengelassen wird.

- Starke Stöße können das Gehäuse des Camerarecorders beschädigen und Betriebsstörungen verursachen.
- Beim Tragen den Camerarecorder am Handgriffriemen oder Schultertrageriemen halten und vorsichtig handhaben.

Insektenspray und andere flüchtige Chemikalien vom Camerarecorder fernhalten.

- Solche Mittel könnten das Gehäuse verformen und Abblättern der Oberflächenbeschichtung verursachen.
- Den Camerarecorder nicht lange Zeit in direktem Kontakt mit Gegenständen aus Gummi oder Kunststoff lassen.

Für die Reinigung nicht Benzin oder Verdünner verwenden.

- Benzin oder Verdünner können das Gehäuse verformen oder Abblättern der Oberflächenbeschichtung verursachen.
- Vor dem Reinigen den Akku herausnehmen oder das Netzkabel aus der Netzsteckdose ziehen.
- Den Camerarecorder mit einem weichen, trockenen Tuch abwischen. Hartnäckige Flecken mit einem leicht mit mildem Reinigungsmittel und Wasser angefeuchteten Tuch behandeln und sofort mit einem trockenen Tuch nachwischen.

Nach beendetem Einsatz immer die Cassette herausnehmen und den Akku entfernen oder das Netzkabel aus der Netzsteckdose ziehen.

- Wenn Sie die Cassette im Camerarecorder lassen, kann sich die Bandwicklung lockern und das Band dadurch beschädigt werden.
- Wenn der Akku sehr lange im Camerarecorder bleibt, könnte er sich übermäßig entladen, so daß ein erneuter Einsatz selbst nach Aufladen unmöglich würde.

■ Optimale Benutzung des Akkus

Besondere Eigenschaften das Akkus

Bei diesem Akku handelt es sich um eine aufladbare Lithium-Ionen-Batterie. Sein Stromerzeugungsprinzip beruht auf einer chemischen Reaktion in seinem Innern. Diese Reaktion wird von der Umgebungstemperatur und der Luftfeuchtigkeit beeinflußt, und bei hoher oder tiefer Temperatur verkürzt sich die Betriebsdauer des Akkus. Beim Einsatz in extrem kalter Umgebung kann daher der Akku u. U. nur eine Betriebsdauer von ca. 5 Minuten liefern. Wenn sich der Akku übermäßig erhitzt, wird er durch eine Schutzfunktion vorübergehend außer Betrieb gesetzt.

Nach beendetem Gebrauch immer den Akku herausnehmen.

Nach dem Gebrauch unbedingt den Akku herausnehmen. (Wenn er eingesetzt bleibt, wird auch bei ausgeschaltetem Camerarecorder ein wenig Strom von ihm entnommen.) Wenn der Akku extrem lange Zeit im Camerarecorder eingesetzt bleibt, könnte er sich übermäßig entladen, so daß ein erneuter Einsatz selbst nach Aufladen unmöglich würde.

Take care not to drop the Camera Recorder when carrying it.

- Strong shocks could damage the body of the Camera Recorder and cause malfunction.
- When carrying, hold the Camera Recorder by the Grip Belt or Shoulder Strap and handle it with care.

Do not spray insecticide or volatile agents on the Camera Recorder.

- Such agents could deform the body and cause the surface coating to peel off.
- Do not leave the Camera Recorder in direct contact with rubber or plastic products for a long time.

Do not use benzine or thinner for cleaning.

- They could deform the body and cause the surface coating to peel off.
- Before cleaning, remove the Battery or unplug the AC Mains Cable from the AC mains socket.
- Wipe the Camera Recorder with a soft, clean cloth. To remove persistent stains, wipe with a cloth moistened with mild detergent diluted with water, and then finish with a dry cloth.

After use, always take out the cassette and remove the Battery or unplug the AC Mains Cable from the AC mains socket.

- If you leave the cassette in the Camera Recorder, the tape can become loosened and damaged.
- If you leave the battery in the Camera Recorder for a long time, the voltage level may drop very low so that the Battery cannot be used any more even after charging.

■Optimum Use of the Battery

Special Characteristics of the Battery

This Battery is a rechargeable lithium-ion battery. Its ability to generate electric energy is based on an internal chemical reaction. This reaction is easily influenced by ambient temperature and humidity, and the useful operation time that the Battery can provide becomes shorter at high and low temperatures. When used in extremely cold surroundings, the Battery may only be able to provide approximately 5 minutes of operation time. If the Battery becomes extremely hot, a protection function is activated and prevents the use of the Battery for some time.

After Use, Always Take out the Battery.

Be sure to remove the Battery from the Camera Recorder. (If it is left in the Camera Recorder, a small amount of electric current is consumed even if the Camera Recorder is turned off.) Leaving the Battery inserted in the Camera Recorder for a very long time could cause it to become excessively discharged, so that it cannot be used any more even after charging.

Entsorgung eines nicht mehr leistungsfähigen Akkus

- Die Lebensdauer des Akkus ist beschränkt.
- Den Akku nicht in ein Feuer werfen, denn er könnte explodieren.

Die Anschlußkontakte des Akkus sauber halten.

Darauf achten, daß die Anschlußkontakte (die beiden runden Öffnungen) nicht durch Staub, Schmutz oder andere Substanzen verstopft werden.
Wenn der Akku aus Versehen fallen gelassen wird, überprüfen, daß der Akku selbst und die Kontakte nicht verformt sind.
Das Einsetzen eines verformten Akkus in den Camerarecorder oder das Aufschieben auf den Netzadapter könnte den Camerarecorder oder den Netzadapter beschädigen.

■ Kondensationsbildung

Feststellen, ob sich im Innern Kondensation gebildet hat, und Abhilfe gegen Kondensation

Wenn nach Einschalten des Camerarecorders die Kondensationsanzeige blinkt, hat sich in seinem Innern Kondensation gebildet. In diesem Falle schaltet sich der Camerarecorder nach einigen Sekunden automatisch aus.
Auf folgende Weise Abhilfe schaffen:

1. **Die Cassette herausnehmen.**
   Keine anderen Funktionen können ausgelöst werden. Je nachdem, wieviel Kondensation sich gebildet hat, kann die Cassette u. U. nicht herausgenommen werden. In diesem Falle ca. 2 - 3 Stunden warten, bevor Sie die Cassette herausnehmen.

2. **Das Cassettenfach geöffnet lassen und ca. 2 - 3 Stunden warten.**
   Die nötige Wartezeit hängt davon ab, wieviel Kondensation sich gebildet hat, sowie auch von der Umgebungstemperatur.

3. **Nach ca. 2 - 3 Stunden den Camerarecorder einschalten und prüfen, ob die Kondensationsanzeige nicht mehr sichtbar ist.**
   Auch wenn die Kondensationsanzeige nicht mehr sichtbar ist, empfiehlt es sich, zur Sicherheit eine weitere Stunde zu warten.

Auf Kondensation achten, auch wenn die Kondensationsanzeige nicht erscheint.

- Da sich Kondensation allmählich bildet, kann es von der Kondensationsbildung 10 - 15 Minuten dauern, bevor die Kondensationsanzeige erscheint.
- An einem extrem kalten Ort könnte die Kondensation gefrieren. In einem solchen Fall dauert es zusätzliche 2 - 3 Stunden, da das Eis zuerst schmelzen muß, bevor sich die Kondensation auflösen kann.

Abhilfe für angelaufene Objektivlinse

Den Schalter [POWER] auf [OFF] stellen und den Camerarecorder ca. 1 Stunde lang in diesem Zustand lassen. Sobald die Temperatur der Objektivlinse auf die Umgebungstemperatur angestiegen ist, wird auch die Linse wieder klar.

Discarding a Battery That Has Become Unusable

- The usable life of the Battery is limited.
- Do not throw the Battery in a fire because it could explode.

Keep the Battery’s Terminals Clean.

Be careful that the terminals (the two small round openings) do not get plugged up with dust, dirt or other substances.
If you accidentally drop the Battery, confirm that the Battery itself and the terminals are not deformed.
Inserting a deformed Battery in the Camera Recorder or attaching it to the AC Adaptor could damage the Camera Recorder or the AC Adapter.

■ Condensation

Determining Whether Condensation Has Formed Inside and Remedy for Condensation

If the Condensation Indication flashes after you turn on the Camera Recorder, condensation has formed inside the Camera Recorder. In this case, the Camera Recorder automatically switches off after a few seconds.
Remedy as follows:

1. **Take out the cassette.**
   All other functions do not work. Depending on the amount of condensation, it may not be possible to take out the cassette. In this case, wait 2 - 3 hours before taking out the cassette.

2. **Leave the Cassette Compartment open and wait for 2 - 3 hours.**
   The required time depends on the amount of condensation and the ambient temperature.

3. **After 2 - 3 hours, turn the Camera Recorder on and check if the Condensation Indication is not displayed.**
   Even if the Condensation Indication is no longer displayed, wait 1 more hour for added safety before using the Camera Recorder again.

Pay Attention to Condensation Even Before the Condensation Indication Appears.

- As condensation forms gradually, the Condensation Indication may not appear for the first 10 - 15 minutes after condensation has formed inside.
- In an extremely cold place, the condensation could freeze and turn into frost. In such a case, it takes an additional 2 - 3 hours for the frost to first melt into condensation and then to be dissolved.

Remedy for a Fogged-up Lens

Set the [POWER] Switch to [OFF] and leave the Camera Recorder in this condition for about 1 hour. When the lens has reached about the same temperature as its surroundings, it automatically clears up.

DEUTSCH

■ Verschmutzte Köpfe und Abhilfe

Wenn die Köpfe (welche mit dem Band in Berührung kommen) verschmutzt sind, treten bei der Wiedergabe mosaikartige Bildstörungen auf, oder der Bildschirm wird ganzflächig schwarz. Wenn die Köpfe sehr stark verschmutzt sind, verschlechtert sich die Aufnahmeleistung noch weiter, und im Extremfall ist kein Aufnehmen mehr möglich.

Ursache von verschmutzten Köpfen

- Stark staubhaltige Luft
- Hohe Umgebungstemperatur und Luftfeuchtigkeit
- Beschädigtes Band
- Extrem lange Verwendung

Einsatz der Kopfreinigungs-Cassette im Mini-DV- Format (nicht mitgeliefert)

1. **Die Reinigungscassette auf gleiche Weise in den Camerarecorder einsetzen, wie eine gewöhnliche Videocassette.**
2. **Die Wiedergabe-Taste [▶] drücken und nach ca. 20 Sekunden die Stopp-Taste [■] drücken. (Das Band nicht zurückspulen.)**
3. **Die Reinigungscassette herausnehmen. Eine Videocassette einsetzen, eine Aufnahme machen und diese anschließend wiedergeben und das Bild prüfen.**
4. **Falls das Bild immer noch nicht sauber ist, die obigen Schritte 1 - 3 wiederholen. (Die Reinigungscassette jedoch nicht öfter als dreimal nacheinander benutzen.)**

Hinweise:

- Das Band in der Reinigungscassette nicht nach jedem Einsatz zurückspulen. Erst zurückspulen, wenn das Bandende erreicht ist, und es dann erneut auf gleiche Weise verwenden.
- Wenn die Videoköpfe sehr bald nach der Reinigung wieder verschmutzt werden, könnte die Ursache in einem beschädigten Band liegen. In diesem Fall die betreffende Cassette nicht mehr verwenden.
- Zu häufiges Reinigen mit der Reinigungscassette vermeiden. (Zu häufiges Reinigen kann u. U. übermäßige Abnutzung der Videoköpfe verursachen, und dabei ist das Wiedergabebild auch nach erfolgter Reinigung nicht sauber.)
- Falls sich die Verschmutzung der Videoköpfe durch den Einsatz der Reinigungscassette nicht beheben läßt, muß der Camerarecorder in einer Service-Werkstatt gereinigt werden. Wenden Sie sich dazu bitte an Ihren Fachhändler.
- Diese Videokopf-Reinigungscassette im Mini DV-Format ist von Service-Centern erhältlich.

Periodische Inspektion

Um optimale Bildqualität zu gewährleisten, empfehlen wir das Auswechseln von abgenutzten Teilen wie den Köpfen nach ca. 1000 Betriebsstunden. (Dies ist jedoch stark von den Einsatzbedingungen wie Temperatur, Luftfeuchtigkeit und Staub abhängig.)

ENGLISH

■ Video Head Clogging and Remedy

When the video heads (which contact the tape) are dirty, the playback picture contains mosaic-like patterns or the whole screen becomes black. If they become even more dirty, the recording performance deteriorates and in the worst case, recording may not be possible at all.

Causes of Dirty Video Heads

- A lot of dust in the air
- High-temperature and high-humidity environment
- Damaged tape
- Long-time use

Using the Mini-DV Format Digital Video Head Cleaner (not supplied)

1. **Insert the Head Cleaner into the Camera Recorder in the same way as a video cassette.**
2. **Press the Play Button [▶], and after approximately 20 seconds press the Stop Button [■]. (Do not rewind the tape.)**
3. **Take out the Head Cleaner. Insert a video cassette, perform recording and then play it back to check the picture.**
4. **If the picture is still not clear, repeat above operation steps 1 - 3. (Do not use the Head Cleaner more than 3 times in succession.)**

Notes:

- Do not rewind the tape in the Head Cleaner after every use. Rewind it only after the tape has reached its end, and then use it again in the same way from the beginning.
- If the video heads again become clogged with dirt soon after cleaning, this might be caused by a damaged tape. In this case, stop using that cassette immediately.
- Be careful not to clean the video heads too much. (Too much cleaning could cause excessive wear to the video heads. If the video heads get worn, the picture is not played back clearly even after cleaning.)
- If using the Head Cleaner does not clear the video head clogging, the Camera Recorder requires cleaning or repairing by a service centre. Please consult with your dealer.
- This Video Head Cleaner is available from service centres.

Periodic Inspection

To ensure optimum picture quality, we recommend that you have worn-out parts such as video heads replaced after approximately 1000 hours of use. (However, this depends considerably on the conditions of use such as temperature, humidity and dust.)

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■ Vorsichtshinweise für die Aufbewahrung

Vor dem Aufbewahren des Camerarecorders die Cassette herausnehmen und den Akku entfernen.

Alle Geräte an einem trockenen Ort aufbewahren, wo die Temperatur relativ konstant bleibt.
(Der empfohlene Temperaturbereich ist 15°C - 25°C und der Luftfeuchtigkeitsbereich (rel.) ist 40% - 60%.)

Camerarecorder

- In ein weiches Tuch einhüllen, damit kein Staub eindringen kann.

Akku

- Extrem niedrige oder hohe Temperatur verkürzt die Betriebsdauer des Akkus.
- Beim Aufbewahren an Orten mit ölhaltigem Rauch und viel Staub können die Anschlußkontakte rosten, und dies kann Betriebsstörungen verursachen.
- **Darauf achten, daß keine Metallgegenstände (wie Halsschmuck, Haarnadeln und Schlüssel) die Anschlußkontakte berühren. Durch Kurzschluß könnte starke Hitzeentwicklung entstehen, und beim Berühren zu Brandwunden führen.**
- Den Akku in entladenem Zustand aufbewahren. Bei extrem langem Aufbewahren des Akkus empfehlen wir, den Akku mindestens einmal pro Jahr aufzuladen und die Ladekapazität vollständig aufzubrauchen, bevor Sie ihn in entladenem Zustand erneut aufbewahren.

Cassette

- Vor dem Aufbewahren das Band immer vollständig zurückspulen. Wenn das Band teilweise vorgespult länger als 6 Monate aufbewahrt wird, könnten sich (je nach Aufbewahrungsbedingungen) die Bandwicklungen lockern. Daher unbedingt vollständig zurückspulen.
- Die Cassette zum Aufbewahren immer in ihre Box einsetzen.
  Staub, direkte Sonnenbestrahlung (ultraviolette Strahlen) und hohe Luftfeuchtigkeit können das Band beschädigen. Staub kann harte Mineralpartikel enthalten, und staubhaltige Cassetten können die Köpfe und andere Präzisionsteile im Camerarecorder beschädigen. Machen Sie es sich zur Regel, die Cassette immer in ihre Box einzusetzen.
- Einmal pro Halbjahr das Band vollständig vor- und anschließend wieder zurückzuspulen. Wenn es länger als ein Jahr ohne Vor- und Zurückspulen aufbewahrt wird, kann es sich durch Ausdehnen und Zusammenziehen aufgrund von Änderungen in der Temperatur und Luftfeuchtigkeit verformen. Zudem könnte es zu Zusammenkleben der Bandwicklungen kommen.
- Die Cassette nicht nahe bei stark magnetisierten Gegenständen oder Geräten aufbewahren.
- Die Bandoberfläche ist mit mikroskopischen Magnetpartikeln beschichtet, in welchen die Signale aufgezeichnet werden. Die magnetische Kraft von Gegenständen wie magnetische Halsketten oder Spielzeug kann weit stärker sein, als man sich vorstellt, und dies kann zu Löschen des aufgezeichneten Inhalts und Bild- und Tonstörungen führen.

ENGLISH

■ Precautions for Storage

Before Storing the Camera Recorder, Take out the Cassette and Remove the Battery.

Store all equipment in a dry place where the temperature remains relatively constant.
(Recommended temperature is 15°C - 25°C and recommended relative humidity is 40% - 60%.)

Camera Recorder

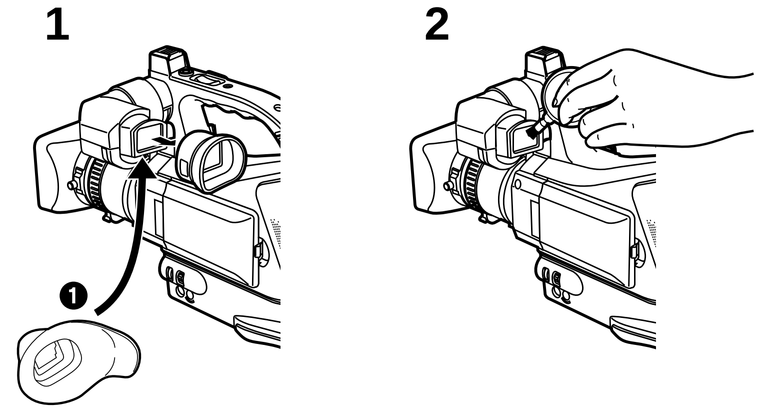
- Wrap it with a soft cloth to prevent dust from entering.

Battery

- Extremely low or high temperature shortens the Battery life.
- Storing it in places with oily smoke and a lot of dust could cause the terminals to get rusty, and this can result in malfunction.
- **Do not allow metal objects (such as necklaces and hair pins) to touch the battery terminals. Short-circuiting may occur and generate heat, and touching it in this condition could inflict serious burns.**
- Store the Battery in discharged condition. If you store the Battery for a long time, we recommend that you charge it once a year and completely use up the charge before storing it again in discharged condition.

Cassette

- Rewind the tape to its beginning before storing.
  Leaving the cassette with the tape stopped halfway for more than 6 months (depending on the storing condition) loosens the tape. Be sure to rewind it to the beginning.
- Put the cassette in its case to store it.
  Dust, direct sunlight (ultraviolet rays) and humidity could damage the tape. Dust contains hard mineral particles and cassettes with dust damage the video heads and other parts of the Camera Recorder. Make it a habit to always put the cassette back into its case.
- Completely wind the tape forward and then rewind it once every half year. Leaving the cassette for more than a year without winding/rewinding it may deform the cassette because of stretching and shrinking of the tape due to changes in temperature and humidity. Also, the tape may stick together.
- Do not place the cassette near strongly magnetized objects or equipment.
- The tape surface is coated with microscopic magnetic particles and they record signals. Such objects as magnetic necklaces and toys have stronger magnetic force than commonly thought, and this could erase the recorded contents and cause noise in picture and sound.



DEUTSCH

■ Große Augenmuschel (mitgeliefert)

Die Standard-Augenmuschel kann gegen eine große Augenmuschel ❶ ausgewechselt werden.

■ LCD-Monitor/ Sucher/ Sonnenblende

LCD-Monitor

- An Orten mit hohem Temperaturwechsel kann Kondensation auf dem LCD-Monitor-Bildschirm auftreten. Wischen Sie ihn mit einem weichen, trockenen Tuch ab.
- Wenn der Camerarecorder beim Einschalten extrem kalt ist, kann das Bild auf dem LCD-Monitor etwas dunkler sein, als normalerweise. Beim Anstieg der Temperatur erreicht jedoch auch der LCD-Monitor wieder seine normale Helligkeit.
- Der LCD-Monitor wird nach extrem hohen Qualitätskriterien gefertigt. Das Ergebnis sind 99,99 % aktive Pixel, und nur 0,01 % der Pixel bleiben inaktiv oder dauernd beleuchtet. Dies ist jedoch keine Funktionsstörung und hat keinen Einfluß auf das aufgezeichnete Bild.

Sucher

- Der LCD-Sucher wird nach extrem hohen Qualitätskriterien gefertigt. Das Ergebnis sind 99,99 % aktive Pixel, und nur 0,01 % der Pixel bleiben inaktiv oder dauernd beleuchtet. Dies ist jedoch keine Funktionsstörung und hat keinen Einfluß auf das aufgezeichnete Bild.
- Den Sucher oder das Objektiv nicht direkter Sonnenbestrahlung ausgesetzt lassen, denn dies könnte Teile im Innern ernsthaft beschädigen.

■ Reinigen des Suchers

Wenn Staub in den Sucher eingedrungen ist, diesen wie folgt reinigen:

1. **Die Okular abnehmen.**
2. **Den Staub mit einem Blasepinsel (nicht mitgeliefert) entfernen.**
3. **Die Okular wieder aufsetzen.**

■ Wiedergabe-Wiederholung

- Wenn Sie die Wiedergabe-Taste [▶] länger als 5 Sekunden gedrückt halten, schaltet der Camerarecorder auf Wiedergabe-Wiederholung um, und die Anzeige [R▷] erscheint. Zum Ausschalten des Modus Wiedergabe-Wiederholung den Schalter [POWER] auf [OFF] stellen.

ENGLISH

■ Large-sized Eyepiece (supplied)

It is possible to replace the standard eyepiece with a large-sized eyepiece ❶.

■ LCD Monitor/ Finder/ Lens Hood

LCD Monitor

- In places where big changes in temperature occur, condensation may form on the LCD Monitor. Wipe it with a soft, dry cloth.
- When the Camera Recorder is very cold when it is turned on, the picture on the LCD Monitor is initially a little darker than normally. However, as the internal temperature rises, the LCD Monitor regains its normal brightness.
- Extremely high precision technology is employed in producing the LCD Monitor. The result is more than 99.99% effective pixels with a mere 0.01% of the pixels inactive or always lit. However, this is not a malfunction and does not affect the recorded picture.

Finder

- Extremely high precision technology is employed in producing the Finder screen. The result is more than 99.99% active pixels, with a mere 0.01% of the pixels inactive or always lit. However, this is not a malfunction and does not affect the recorded picture.
- Do not leave the Finder or the Lens aimed at the sun. This could seriously damage internal parts.

■ Cleaning the Finder

If dust has entered the Finder, clean it in the following way:

1. **Remove the Eyepiece.**
2. **Remove the dust with a blower brush (not supplied).**
3. **Reattach the Eyepiece.**

■ Repeat Playback

- If you keep the Playback Button [▶] pressed for more than 5 seconds, the Camera Recorder switches over to the Repeat Playback Mode and the [R▷] Indication appears. (To cancel the Repeat Playback Mode, set the [POWER] Switch to [OFF].)

DEUTSCH

Glossar

■ Digital-Video-System

Beim Digital-Video-System werden Bild und Ton in Digitalsignale umgesetzt und anschließend auf das Band aufgezeichnet.
Dieses rein digitale Aufzeichnungsverfahren ermöglicht Aufnahme und Wiedergabe mit einem absoluten Minimum an Qualitätsverlust.
Zusätzlich werden verschiedene Daten wie Timecode, Datum und Uhrzeit automatisch als digitale Signale mit aufgezeichnet.

Qualitätsmerkmale

- Überlegene Bildauflösung
- Hervorragender Signal-/Störabstand
- Stabiles Bild
- Minimierter Qualitätsverlust beim Kopieren
- Minimierter Farbversatz
- Digitaler PCM-Ton
- Kein Bildqualitätsverlust im LP-Modus
- 6,35 mm Bandbreite
- Kompakte Cassette und lange Aufnahmedauer
- Minimierter Qualitätsverlust beim Editieren
- Timecode-gesteuertes Editieren

Kompatibilität mit S-VHS- oder VHS-Cassetten

Da dieser Camerarecorder ein rein digitales Verfahren für die Aufzeichnung von Bild und Ton verwendet, besteht keine Kompatibilität mit dem konventionellen S-VHS- und VHS-System, welche analoge Aufzeichnungsverfahren verwenden.
Zudem besteht ein sehr großer Unterschied in der Größe und Form der Cassetten.

Kompatibilität mit Ausgangssignalen

Da die durch die Video- und Audio-Ausgangsbuchsen ausgegebenen Bild- und Tonsignale analog sind — also gleich wie die Signale in den konventionellen Videosystemen —, können Sie den Camerarecorder für die Wiedergabe an einen S-VHS- oder VHS-Videorecorder oder auch direkt an ein Fernsehgerät anschließen.

PCM-Digital-Ton

Für die Aufzeichnung des Tons bietet dieser Camerarecorder die Wahl zwischen zwei PCM-Tonaufzeichnungs-Modi:

- 16 Bit, 48 kHz, 2 Kanäle
- 12 Bit, 32 kHz, 4 Kanäle

Der Modus „16 Bit, 48 kHz, 2 Kanäle“ bietet eine überlegene Stereo-Tonqualität.
Der Modus „12 Bit, 32 kHz, 4 Kanäle“ bietet die Möglichkeit, den Originalton in Stereo auf 2 Kanälen und Nachvertonung in Stereo auf zwei weiteren Kanälen aufzuzeichnen.

Zusatzcode

Das digitale Aufzeichnungsverfahren ermöglicht auch das Aufzeichnen von Zusatzcode, der verschiedene Daten enthält.
Dieser Camerarecorder zeichnet die folgenden Daten im Zusatzcode mit auf:

- Timecode
- Aufnahme-Datum und -Uhrzeit
- Indexsignale für schnelles Auffinden von Standbildern, die im Photoshot-Modus aufgezeichnet wurden.
- Indexsignale für schnelles Auffinden des Anfangs von Szenen, die mit Indexsignal markiert sind.

ENGLISH

Glossary

■ Digital Video System

In the digital video system, picture and sound are converted into digital signals and recorded onto the tape.
This completely digital recording allows recording and playback of picture and sound with minimum quality deterioration.
In addition, such data as Time Code, Date and Time are also automatically recorded as digital signals.

Features

- Superior picture resolution
- Excellent signal-to-noise ratio
- Stable pictures
- Minimised quality deterioration in dubbing
- Minimised cross colour distortion
- PCM digital sound
- No picture deterioration in LP Mode
- 6.35 mm-wide tape
- Compact cassette with long recording time
- Minimised quality deterioration in editing
- Time Code editing

Compatibility with S-VHS or VHS Cassettes

As this Camera Recorder uses a digital method for recording picture and sound, there is no compatibility with conventional S-VHS or VHS video equipment using analog recording methods.
In addition, the size and shape of the cassette are completely different.

Compatibility with Output Signals

As the video and audio signals output from the audio and video output sockets are analog — the same as in conventional video systems — you can connect this Camera Recorder to your S-VHS or VHS VCR or TV for playback.

PCM Digital Sound

For recording of the sound, this Camera Recorder offers the choice between two different PCM Audio Recording Modes.

- 16 bit, 48 kHz, 2 channels
- 12 bit, 32 kHz, 4 channels

The “16 bit, 48 kHz, 2 channels” Mode offers superior recording sound quality.
The “12 bit, 32 kHz, 4 channels” Mode lets you record the original sound in stereo on two channels and the dubbed sound in stereo on two separate channels.

Sub Code

The digital recording system offers the added capability of recording sub code containing various data.
The following data is recorded as sub code on this Camera Recorder:

- Time code
- Recording date and time
- Index signals for locating still images recorded in the Photoshot Mode
- Index signals for locating the beginning of scenes marked with index signal

DEUTSCH

■ Scharfeinstellung

Wenn Sie einen Gegenstand unter der Lupe betrachten und diese dem Gegenstand nähern oder davon entfernen, erreichen Sie einen Punkt, wo der Gegenstand deutlich sichtbar wird. Das Einstellen des Objektivs, um den Bildgegenstand am klarsten und schärfsten sichtbar zu machen, wird als Scharfeinstellung bezeichnet.

Menschenauge

Auch das Menschenauge hat eine Linse, und wenn wir Gegenstände in unterschiedlicher Entfernung betrachten, verändert sich die Form der Linse automatisch und sofort, damit wir diese Gegenstände immer scharf und deutlich sehen.

Camerarecorder

Der Bildgegenstand wird durch die Objektivlinse auf den Bildwandler im Innern des Camerarecorders gespiegelt und durch diesen für die Aufzeichnung auf Magnetband in ein elektrisches Signal (Video-Signal) umgewandelt. Die Scharfeinstellung erfolgt entweder automatisch oder manuell, indem die Fokussierlinse hinter dem Objektiv verschoben wird.

Automatische Scharfeinstellung (Auto-Focus)

Das Auto-Focus-System in diesem Camerarecorder bewegt die Fokussierlinse vorwärts oder rückwärts bis das Bild scharf eingestellt ist.
Das Auto-Focus-System hat die folgenden Eigenschaften:

- Es stellt so scharf ein, daß die vertikalen Konturen des Bildgegenstandes optimal klar und sauber sind.
- Es stellt einen Bildgegenstand mit starkem Kontrast scharf ein.
- Es stellt den Bildgegenstand in der Bildmitte scharf ein.
  Anders als das Menschenauge ist das Scharfeinstellungs-System des Camerarecorders jedoch nicht in der Lage, die Scharfeinstellung ohne jegliche Verzögerung von einem entfernten auf einen nahen Bildgegenstand und umgekehrt zu ändern.

ENGLISH

■ Focus

If you look at an object through a magnifying glass and move it closer or further away from your eye, you will reach a point where the object becomes clearly visible. Being focused or in focus means that the subject can be seen with optimum clarity and sharpness.

Human Eyes

Human eyes have lenses as well, and when we look at objects at different distances, the shape of these lenses changes automatically so that we can always see these objects clearly.

Camera Recorder

The image of the subject enters the Camera Recorder through the lens and is converted into an electric signal (video signal) for recording onto magnetic tape. The focus is adjusted either manually or automatically by moving a focusing lens.

Auto Focus Adjustment

The Auto Focus System automatically moves the internal focusing lens forward or backward and adjusts the focus so that the subject can be seen clearly.
The Auto Focus Adjustment has the following characteristics:

- It adjusts until the vertical contours of the subject are as sharp and clean as possible.
- It adjusts the focus on the subjects with strong contrast.
- It adjusts the focus on the subject in the centre of the LCD Monitor or Finder.
  Unlike human eyes, the lens of the Camera Recorder cannot instantaneously change the focus from a nearby to a distant subject and vice versa.

DEUTSCH

Für die folgenden Bildgegenstände und Aufnahmesituationen kann das Auto-Focus-System nicht präzise Scharfeinstellungen liefern.
In diesen Fällen sollte die Scharfeinstellung daher manuell vorgenommen werden. (➜ 40)

❶ **Bildgegenstände, die zum Teil nahe beim Camerarecorder und zum Teil weit davon entfernt sind.**
Da die automatische Scharfeinstellung auf den zentralen Bildausschnitt vorgenommen wird, ist es oft unmöglich, sowohl auf den nahen Teil des Bildgegenstandes als auch auf den entfernten Teil scharf einzustellen.
Wenn Sie zum Beispiel eine Person vor einem entfernten Berg aufnehmen möchten, kann nicht gleichzeitig auf beide scharf eingestellt werden.

❷ **Bildgegenstände hinter verschmutzten oder nassen Fenstern**
Da die automatische Scharfeinstellung auf das verschmutzte Glas vorgenommen wird, bleibt der Bildgegenstand hinter dem Glas unscharf. Beim Aufnehmen eines Bildgegenstandes auf der anderen Straßenseite wird die Scharfeinstellung u. U. wiederholt auf dazwischen vorbeifahrende Autos vorgenommen.

❸ **Bildgegenstände in dunkler Umgebung**
Da die durch das Objektiv empfangene Lichtinformation sehr gering ist, kann der Camerarecorder nicht präzise scharf einstellen.

❹ **Bildgegenstände, die von glänzenden Oberflächen oder viel Lichtreflexion umgeben sind.**
Da der Camerarecorder bevorzugt auf Gegenstände mit glänzenden Oberflächen oder viel Lichtreflexion scharf einstellt, ist der Bildgegenstand u. U. nicht scharf.
Beim Aufnehmen von Strandszenen, Abendszenen, Feuerwerk und Situationen unter besonderen Beleuchtungstypen bleibt der Bildgegenstand u. U. unscharf.

❺ **Bildgegenstände mit schneller Bewegung**
Da die interne Fokussierlinse mechanisch bewegt wird, kann sie den sich schnell bewegenden Objekten nicht ohne Verzögerung folgen. Bei Motiven, wie Kindern, die hin und her laufen, werden diese vorübergehend unscharf.

❻ **Bildgegenstände mit schwachem Kontrast**
Da der Camerarecorder auf die vertikalen Bildkonturen scharf einstellt, kann es bei Motiven mit wenig Kontrast, wie etwa bei einer weißen Mauer, zur Unschärfe kommen.

ENGLISH

For the following subjects and recording situations, the Auto Focus System cannot provide precise adjustment.
Use the Manual Focus Mode instead. (➜ 40)

❶ **Recording subjects with a part of it near the Camera Recorder and another part far away from it**
As the Auto Focus adjusts on the centre part of the image, it is often impossible to bring the nearby and distant parts of the subject into focus.
When you want to record a person with a distant mountain in the back, it is not possible to focus on both.

❷ **Recording subjects behind glass covered with dirt or dust**
As the focus is adjusted on the dirty glass, the subject behind the glass is out of focus. When recording a subject across a street on which cars are running, the focus may be adjusted on the cars.

❸ **Recording subjects in dark surroundings**
As the amount of light information entering through the lens is greatly reduced, the Camera Recorder cannot adjust the focus precisely.

❹ **Recording subjects surrounded by objects with shiny surfaces or much light reflection**
As the Camera Recorder adjusts the focus on objects with shiny surfaces or much light reflection, the subject may go out of focus.
Therefore, when recording at a lake or the sea, evening scenes, fireworks, or under special types of lighting, the subject may be out of focus.

❺ **Recording fast-moving subjects**
As the internal focusing lens is moved mechanically, it cannot follow fast-moving subjects without delay. Therefore, subjects like children running back and forth may temporarily go out of focus.

❻ **Subjects with weak contrast**
As the Camera Recorder adjusts the focus based on vertical contours in the picture, subjects with little contrast such as a white wall may be out of focus.

DEUTSCH

■ Weißabgleich

Während mit dem Camerarecorder wohl überwiegend im Freien unter Sonnenlicht aufgenommen wird, findet man immer wieder interessante Motive, die durch die verschiedensten Arten von Kunstlicht beleuchtet sind, sowohl drinnen wie draußen. Jede dieser Lichtquelle färbt jedoch den Bildgegenstand unterschiedlich ein.

Menschenauge

Unsere Augen und unser Gehirn können sich ohne jegliche Schwierigkeiten auf verschiedenste Arten von Beleuchtung einstellen, und wir sehen daher die Farbe eines Gegenstandes sogar unter verschiedensten Lichtquellen immer gleich.

Camerarecorder

Camerarecorder hingegen besitzen diese hervorragende Anpassungsfähigkeit nicht. Würde daher ein Bildgegenstand ohne Farbkompensierung aufgenommen, würde die Beleuchtung seine Farbe beeinflußen, und die Bilder hätten einen Rot- oder Blaustich. Um dies zu verhindern und immer natürliche Farben zu gewährleisten, muß am Camerarecorder eine als „Weißabgleich“ bezeichnete Einstellung — entweder automatisch oder manuell — durchgeführt werden.

Weißabgleich

Der Camerarecorder stellt die Farbe der Beleuchtung fest und kompensiert diese so, daß Weiß rein weiß bleibt. Weiß ist die Grundfarbe des Farbspektrums, und wenn daher Weiß korrekt wiedergegeben wird, sind auch alle anderen Farben korrekt und natürlich.

Automatischer Weißabgleich

In diesem Camerarecorder sind die optimalen Weißabgleich-Einstellungen für einige allgemein übliche Beleuchtungssituationen gespeichert. Er stellt die Farbe des durch das Objektiv und durch das Weißabgleichsensor-Fenster (➜ 12) einfallenden Lichtes fest und wählt die entsprechende Farbeneinstellung aus den gespeicherten Einstellungen aus. Diese Funktion wird als „automatischer Weißabgleich“ bezeichnet.
Da jedoch nur die optimalen Einstellungen für eine beschränkte Anzahl an Lichtquellen gespeichert sind, funktioniert der automatische Weißabgleich nicht mit ausreichender Präzision unter anderen Bedingungen.

Der Bereich an Beleuchtungstypen, unter denen die automatische Weißabgleich-Funktion präzise Resultate liefern kann, ist auf Seite (➜ 156) gezeigt. Beim Aufnehmen unter Beleuchtungstypen außerhalb dieses Bereichs funktioniert der automatische Weißabgleich nicht präzise, und die Bilder können einen Rot- oder Blaustich haben. Das gleiche gilt auch beim Aufnehmen einer Szene unter mehr als einem Beleuchtungstyp, selbst wenn diese Beleuchtungstypen innerhalb dieses Bereichs liegen.

ENGLISH

■ White Balance Adjustment

While most recording with a Camera Recorder is probably done outdoors under sunlight, video recording is also done very often under artificial light sources, both indoors and outdoors. However, each of these light sources gives the subject slightly different colours.

Human Eyes

Human eyes can easily adjust to different kinds of lighting and see an object with the same colours even under different lighting.

Camera Recorder

Unlike human eyes, the Camera Recorder does not have the innate ability to adapt to changes in lighting, and they influence the colours being recorded. Therefore, depending on the light source, the picture would be recorded with a bluish or reddish tint. To minimise the influence of the lighting on the colours of the subject, an adjustment called White Balance Adjustment is necessary.

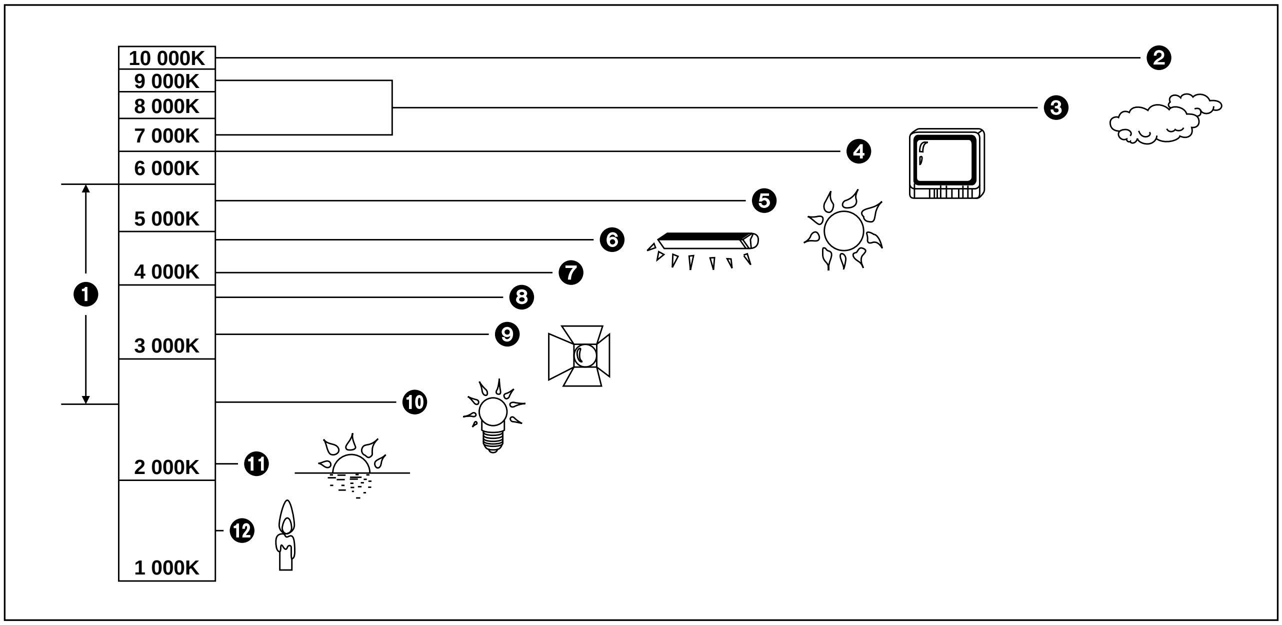
White Balance Adjustment

The White Balance Adjustment determines the colour of the light and adjusts the colours so that white remains pure white. As white is the basic colour of the entire colour spectrum, if white is reproduced correctly, the other colours are correct and natural, too.

Auto White Balance Adjustment

This Camera Recorder stores the optimum settings for several common light sources in memory. The Camera Recorder judges the recording situation by determining the tint of the light received through the lens and by the White Balance Sensor (➜ 12), and it selects the setting for the most similar tint. This function is called Auto White Balance Adjustment.
However, as the white balance settings for only a few light sources are stored in memory, the white balance is not correctly adjusted for other lighting conditions.

For the range of different types of lighting within which the Auto White Balance Function can provide precise adjustment, refer to the chart (➜ 156). For recording under lighting conditions outside this range, the Auto White Balance Function does not work correctly, and the recorded picture has a red or blue cast. However, the same also applies, if the subject is lit by more than one light source, even if these light sources are within this range.



DEUTSCH

■ Farbtemperatur

Jede Lichtquelle hat ihre eigene Farbtemperatur, und diese wird in Kelvin (K) gemessen. Je höher der Kelvinwert ist, desto bläulicher ist das Licht, und je niedriger er ist, desto rötlicher ist das Licht. Der Kelvinwert steht in direkter Beziehung zur Farbe des Lichtes, jedoch nicht direkt zu seiner Helligkeit.
Der Bereich ❶ in obiger Übersicht zeigt die Lichtquellen, unter denen die automatische Weißabgleich-Funktion präzise funktioniert und Bilder mit natürlichen Farben gewährleisten kann. Für Lichtquellen außerhalb dieses Bereichs sollte der Weißabgleich manuell vorgenommen werden (➜ 84). Zudem ist eventuell für verstärkte Beleuchtung zu sorgen.

❶ Regelbereich der Weißabgleich-Automatik

❷ Blauer Himmel

❸ Stark bewölkter Himmel (Regen)

❹ Fernsehbildschirm

❺ Sonnenlicht

❻ Leuchtstofflampe, weißgefärbt

❼ 2 Stunden nach Sonnenaufgang oder vor Sonnenuntergang

❽ 1 Stunde nach Sonnenaufgang oder vor Sonnenuntergang

❾ Halogenlampe

❿ Glühlampe, weißgefärbt

⓫ Sonnenaufgang oder Sonnenuntergang

⓬ Kerzenlicht

ENGLISH

■ Colour Temperature

Every light source has its own colour temperature measured in Kelvin (K). The higher the Kelvin value, the more bluish the light; the lower the value, the more reddish the light. The Kelvin value is related to the tint of the light, but not directly to its brightness.
The range ❶ indicated in the illustration above shows the light sources for which this Camera Recorder can provide precise white balance adjustment and, therefore, natural colours in the recorded pictures, when using the Full Auto Mode. For light sources outside this range, adjust the white balance manually (➜ 84). Also, additional lighting may be necessary.

❶ Control range of this Camera Recorder’s Auto White Balance Adjustment Mode

❷ Blue sky

❸ Cloudy sky (Rain)

❹ TV screen

❺ Sunlight

❻ White fluorescent lamp

❼ 2 hours after sunrise or before sunset

❽ 1 hour after sunrise or before sunset

❾ Halogen light bulb

❿ Incandescent light bulb

⓫ Sunrise or sunset

⓬ Candlelight

■ Timecode

Beim Timecode handelt es sich um Daten, welche die Zeit in Stunden, Minuten, Sekunden und Vollbildern (25 Vollbilder pro Sekunde) angeben und automatisch mit aufgezeichnet werden. Dadurch besitzt jedes Vollbild auf dem Band seine eigene Adresse (Nummer), und dies ermöglicht extrem präzises Editieren.

- Der Timecode wird automatisch bei jeder Aufnahme als Teil des Zusatzcodes mit aufgezeichnet.
- Beim Einsetzen einer neuen (noch nie bespielten) Cassette beginnt der Timecode automatisch von Null. Beim Einsetzen einer bereits teilweise bespielten Cassette läuft der Timecode ab dem bei der letzten Aufnahme erreichten Stand weiter. (Obwohl in diesem Fall u. U. die Timecode-Anzeige „0h:00m:00s:00f“ erscheinen kann, wird der Timecode beim Aufnahmestart korrekt vom zuletzt aufgezeichneten Timecodewert an aufgenommen.)
- Der Timecodewert kann nicht auf Null zurückgestellt werden.
- In den Sonderwiedergabe-Funktionen (also mit Ausnahme normaler Wiedergabe) wird der Timecode u. U. nicht angezeigt, oder er ist nicht korrekt.
- Hohe Editierpräzision ist nur dann gewährleistet, wenn der Timecode vom Bandanfang an kontinuierlich aufgezeichnet wird. Um sicherzustellen, daß der Timecode ohne Unterbrechung aufgezeichnet wird, empfehlen wir die Benutzung der Funktionen Kamera-Suchlauf (➜ 62) oder Leerstellen-Suchlauf (➜ 64) vor dem erneuten Aufnahmebeginn.

■ Speicherstopp-Funktion

Die Speicherstopp-Funktion ist besonders praktisch für folgende Einsatzmöglichkeiten:

Zurück- oder Vorspulen des Bandes zu einer gewünschten Stelle

1 **Das Bandzählwerk an der Bandstelle, ab welcher Sie später wiedergeben möchten, auf Null zurückstellen. (➜ 126)**

2 **[DISPLAY] im Menü auf [MEMORY] einstellen. (➜ 122-128)**

3 **Die Wiedergabe oder Aufnahme starten.**

4 Nach beendeter Wiedergabe oder Aufnahme:
Die Taste [VCR/CAMERA] drücken, so daß die Lampe [VCR] leuchtet.

5 **Das Band zurückspulen.**
Das Band stoppt automatisch ungefähr an der Stelle, an der das Bandzählwerk auf Null zurückgestellt wurde.

Automatisches Stoppen des Editiervorgangs bei Nachvertonung

1 **Das Bandzählwerk an der Bandstelle, an welcher die Nachvertonung enden soll, auf Null zurückstellen.**

2 **[DISPLAY] im Menü auf [MEMORY] einstellen. (➜ 122-128)**

3 **An der Bandstelle, an welcher die Nachvertonung beginnen soll, auf Standbild-Wiedergabe umschalten.**

4 **Die Nachvertonung starten.**
Die Nachvertonung stoppt automatisch ungefähr an der Stelle, an der das Bandzählwerk auf Null zurückgestellt wurde.

■ Time Code

Time Code signals are the data which indicates the time in hours, minutes, seconds and frames (25 frames/sec). Having this data included in the recording gives every single picture on the tape its own address.

- The Time Code is automatically recorded as part of the sub code with every recording you make.
- When you insert a new (previously unrecorded) cassette, the Time Code automatically starts from zero. If you insert a recorded cassette, the Time Code continues where the time code of the last previous scene stopped. (In this case, the zero indication [0h:00m:00s:00f] may appear after inserting the cassette, but when the recording starts, the Time Code records from the previous value.)
- You cannot reset the Time Code to zero.
- In playback modes other than the Normal Playback Mode, the Time Code may not be displayed (or not be correct).
- Unless the Time Code is recorded continuously from the beginning of the tape, precise editing may not be possible. To ensure that the Time Code is recorded without interruption, we recommend that you use the Camera Search Function (➜ 62) or Blank Search Function (➜ 64) before starting to record a new scene.

■ Memory Stop Function

The Memory Stop Function is convenient for the following operations.

Rewinding or fast-forwarding the tape to a desired position

1 **Reset the Tape Counter at the tape position from which you want to play back later. (➜ 126)**

2 **Set [DISPLAY] on the Menu to [MEMORY]. (➜ 122-128)**

3 **Start playback or recording.**

4 After playback or recording is finished:
Press the [VCR/CAMERA] Button so that the [VCR] Lamp lights.

5 **Rewind the tape.**
The tape automatically stops approximately at the position at which you reset the counter to zero.

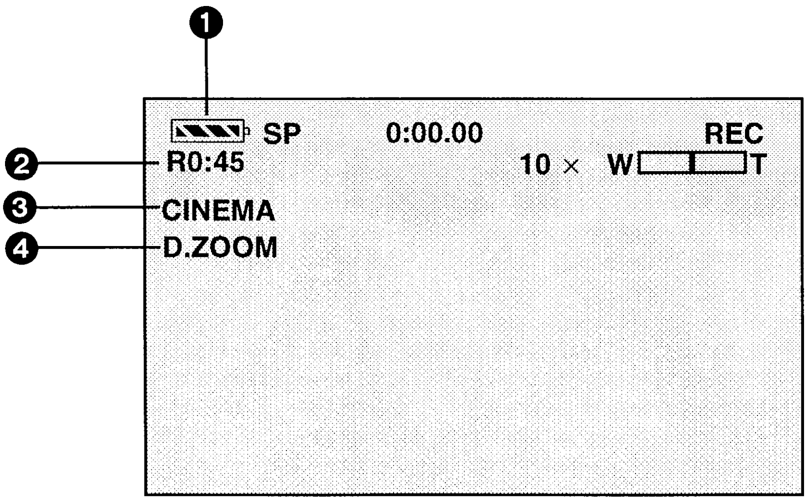
Stopping the editing automatically in the audio dubbing

1 **Reset the Tape Counter to zero at the tape position at which you want the editing to stop.**

2 **Set [DISPLAY] on the Menu to [MEMORY]. (➜ 122-128)**

3 **Play back a still picture at the point at which you want the audio dubbing to start.**

4 **Start the audio dubbing.**
The audio dubbing automatically stops approximately at the position at which you reset the counter to zero.



DEUTSCH

Anzeigen auf dem LCD-Monitor/im Sucher

❶ **Akkuspannung**
Beim Abnehmen der Akkuspannung ändert sich die Anzeige wie folgt:
▰▰▰▰ → ▰▰▰▱ → ▰▰▱▱ → ▰▱▱▱ → ▱▱▱▱
Wenn der Akku vollständig entladen ist, blinkt die Anzeige ▰▱▱▱ (▱▱▱▱).
(Beim Einsatz des Netzadapters erscheint u. U. die Anzeige ▰▰▰▱; dies ist jedoch in diesem Falle ohne Bedeutung.)

❷ **Bandrestzeit**
Die Bandrestzeit wird in Minuten angezeigt. (Wenn sie unter 3 Minuten absinkt, beginnt die Anzeige zu blinken.)

- Wenn eine Aufnahme weniger als 15 Sekunden dauert, kann die Bandrestzeit nicht korrekt angezeigt werden.
- Die angezeigte Bandrestzeit kann u. U. etwas kürzer sein, als die effektiv auf dem Band verbleibende Zeit.

❸ **Kinoformat-Aufnahmemodus (➜ 46)**
Beim Aufnehmen im Kinoformat erscheint diese Anzeige.

❹ **Digital-Zoom (➜ 42)**
Wenn die Digital-Zoom-Funktion eingeschaltet wird, erscheint diese Anzeige.

Digital-Effekte (➜ 78)
Wenn ein Digital-Effekt eingeschaltet wird, erscheint die entsprechende Anzeige.

ENGLISH

Indications on the LCD Monitor/in the Finder

❶ **Remaining Battery Power**
As the remaining battery power decreases, the indication changes as follows:
▰▰▰▰ → ▰▰▰▱ → ▰▰▱▱ → ▰▱▱▱ → ▱▱▱▱
When the battery is completely discharged, the ▰▱▱▱ (▱▱▱▱) Indication flashes.
(When you are using the AC Adapter, the ▰▰▰▱ Indication may appear, however, this has no meaning in this case.)

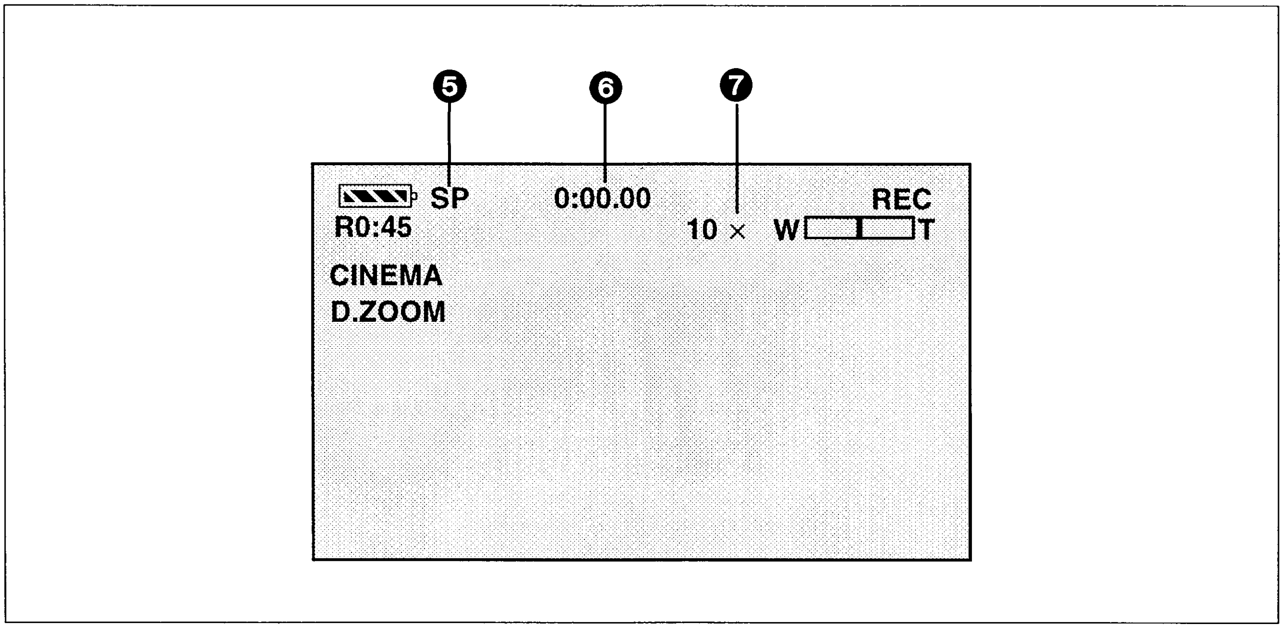
❷ **Remaining Tape Time**
The remaining tape time is displayed in minutes. (When it becomes less than 3 minutes, the indication starts to flash.)

- If a recording lasts less than 15 seconds, the Remaining Tape Time cannot be displayed correctly.
- The displayed remaining tape time may be shorter than the actual remaining tape time.

❸ **Cinema Mode (➜ 46)**
When recording in the Cinema Mode, this indication is displayed.

❹ **Digital Zoom (➜ 42)**
When the Digital Zoom Function is activated, this indication is displayed.

Digital Effects (➜ 78)
When a digital effect is activated, the corresponding indication is displayed.



DEUTSCH

❺ Aufnahmegeschwindigkeits-Modus (➜ 28)

Der gewählte Aufnahmegeschwindigkeits-Modus wird angezeigt.
SP: Standard-Modus
LP: Long-Play-Modus

❻ Bandzählwerk, Timecode (➜ 158,166)

Die Bandzählwerk-, die Speicherstopp-Funktions- oder die Timecode-Anzeige wird angezeigt.

❼ Zoom-Vergrößerung (➜ 42)

Wenn der Zoomhebel [W/T] nach oben oder unten gedrückt wird, erscheinen die Zoom-Vergrößerungsgrad-Anzeige und die Zoom-Skala.

Aufnahme-Modus (➜ 34, 40, 74, 86, 88, 90, 92, 94)

AUTO:	Wenn der Modus-Wahlschalter auf [AUTO] eingestellt wird, erscheint diese Anzeige.
MNL:	Wenn der Modus-Wahlschalter auf [MANUAL] eingestellt wird, erscheint diese Anzeige.
AE LOCK:	Wenn der Modus-Wahlschalter auf [AE LOCK] eingestellt wird, erscheint diese Anzeige.

Digital-Bildstabilisator (➜ 48)

▣:	Wenn die Digital-Bildstabilisator-Funktion eingeschaltet wird, erscheint diese Anzeige.

Tonaufnahme-Modus (➜ 102)

12bit/16bit:	Die Anzeige des für die Aufnahme gewählten Tonaufnahme-Modus erscheint während der Wiedergabe.

Drucken aller Standbilder*

AUTOPRINT:	Wenn die automatische Druckfunktion benutzt wird, erscheint diese Anzeige.

***Dieser Menüpunkt funktioniert nicht.**

ENGLISH

❺ Recording Speed Mode (➜ 28)

The selected Recording Speed Mode is displayed.
SP: Standard Mode
LP: Long-play Mode

❻ Tape Counter, Time Code (➜ 158,166)

The Tape Counter, Memory Stop Function or Time Code Indication is displayed.

❼ Zoom Magnification (➜ 42)

When you push the [W/T] Zoom Lever up or down, the Zoom Magnification Indication and the Zoom Gauge are displayed.

Recording Mode (➜ 34, 40, 74, 86, 88, 90, 92, 94)

AUTO:	This appears when the Mode Selector Switch is set to the [AUTO] position.
MNL:	This appears when the Mode Selector Switch is set to the [MANUAL] position.
AE LOCK:	This appears when the Mode Selector Switch is set to the [AE LOCK] position.

Digital Image Stabilizer (➜ 48)

▣:	When the Digital Image Stabilizer Function is activated, this indication is displayed.

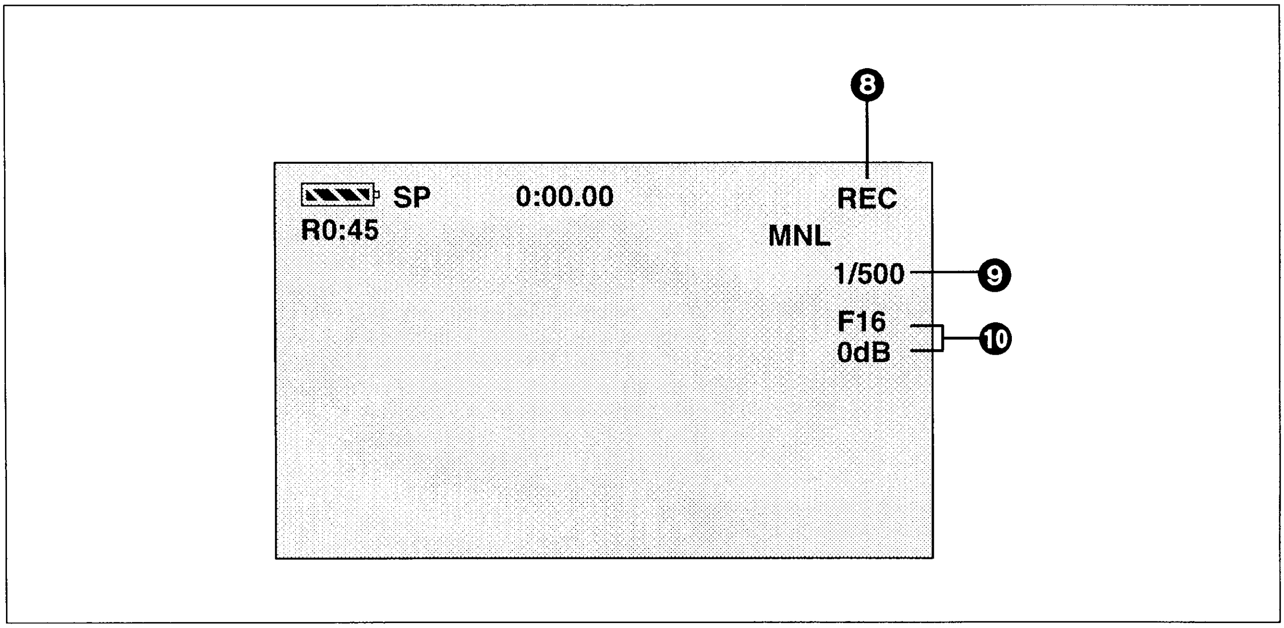
Audio Recording Mode (➜ 102)

12bit/16bit:	The indication of the Audio Recording Mode that was selected for recording is displayed during playback.

All Photoshot Pictures Printing*

AUTOPRINT:	This indication is displayed when the Auto Print Function is being used.

***This menu item does not function.**



DEUTSCH

⑧ Bandlauf-Anzeigen

REC:	Aufnahme (→ 34)
PAUSE:	Aufnahmepause (→ 34)
▷:	Wiedergabe (→ 50)/Kamera-Suchlauf vorwärts (→ 62)
◁:	Kamerasuchlauf rückwärts (→ 62)
❚❚:	Standbild-Wiedergabe (→ 56)
▷▷:	Vorspulen/Bildsuchlauf vorwärts (Cue) (→ 52)
◁◁:	Rückspulen/Bildsuchlauf rückwärts (→ 50, 52)
❚▷ / ◁❚ :	Zeitlupen-Wiedergabe vorwärts/Zeitlupen-Wiedergabe rückwärts (→ 54)
❚❚▷ / ◁❚❚:	Einzelbild-Wiedergabe vorwärts/Einzelbild-Wiedergabe rückwärts (→ 56)
▷▷❚/❚◁◁:	Index-Suchlauf vorwärts/Index-Suchlauf rückwärts (→ 68, 72)
CHK:	Aufnahmeprüfung (→ 36)
A.DUB▷:	Nachvertonung (→ 102)
A.DUB ❚❚:	Nachvertonungspause (→ 102)
PHOTO:	Standbild-Aufnahme im Photoshot-Modus (→ 44)
BLANK:	Leerstellen-Suchlauf (→ 64)
R▷:	Aufnahme-Wiederholung (→ 146)

- Beim Aufnehmen mit nach vorne gerichtetem LCD-Monitor und Benutzung des Spiegelbild-Modus erscheinen nur die Akkuspannungs-Anzeige, die Aufnahme-Anzeige [●] und die Aufnahmepause-Anzeige [●❚❚].

⑨ Verschlußzeit

Diese Anzeige erscheint, wenn Sie die Verschlußzeit manuell einstellen. (→ 90)

⑩ Blendenwert/Aufhellungswert

Diese beiden Anzeigen erscheinen zusammen, wenn Sie die Blende und die Aufhellung manuell einstellen. (→ 92)

ENGLISH

⑧ Tape Run Indications

REC:	Recording (→ 34)
PAUSE:	Recording Pause (→ 34)
▷:	Playback (→ 50)/Camera Search in forward direction (→ 62)
◁:	Camera Search in reverse direction (→ 62)
❚❚:	Still playback (→ 56)
▷▷:	Fast-forward/Cue playback (→ 52)
◁◁:	Rewind/Review playback (→ 50, 52)
❚▷ / ◁❚ :	Slow playback in forward direction/ Slow playback in reverse direction (→ 54)
❚❚▷ / ◁❚❚:	Still Advance playback in forward direction/Still Advance playback in reverse direction (→ 56)
▷▷❚/❚◁◁:	Index Search in forward direction/ Index Search in reverse direction (→ 68, 72)
CHK:	Recording check (→ 36)
A.DUB▷:	Audio dubbing (→ 102)
A.DUB ❚❚:	Audio dubbing pause (→ 102)
PHOTO:	Recording in the Photoshot Mode (→ 44)
BLANK:	Blank Search (→ 64)
R▷:	Repeat playback (→ 146)

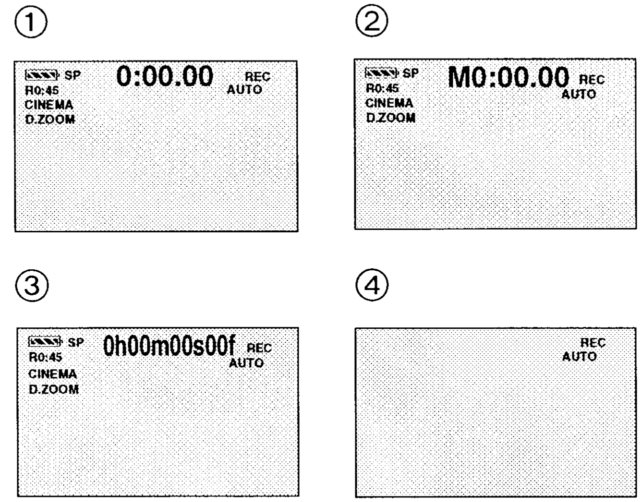
- When recording with the LCD Monitor facing forward using the Mirror Mode, only the Remaining Battery Power Indication, the Recording Indication [●] and the Recording Pause Indication [●❚❚] are displayed.

⑨ Shutter Speed

It appears when you manually adjust the shutter speed. (→ 90)

⑩ Iris Value (F Number)/Gain-up Value

These two indications appear together when you manually adjust the iris and gain. (→ 92)



DEUTSCH

Umschalten der Anzeigen

Durch Ändern der Einstellung für [DISPLAY] im Menü (➜ 122–128) oder durch wiederholtes Drücken der Taste [DISPLAY] auf der Fernbedienung (➜ 106) kann der Zählwerk-Anzeigemodus in der Reihenfolge geändert werden, wie in den obigen Abbildungen ①–④ gezeigt.

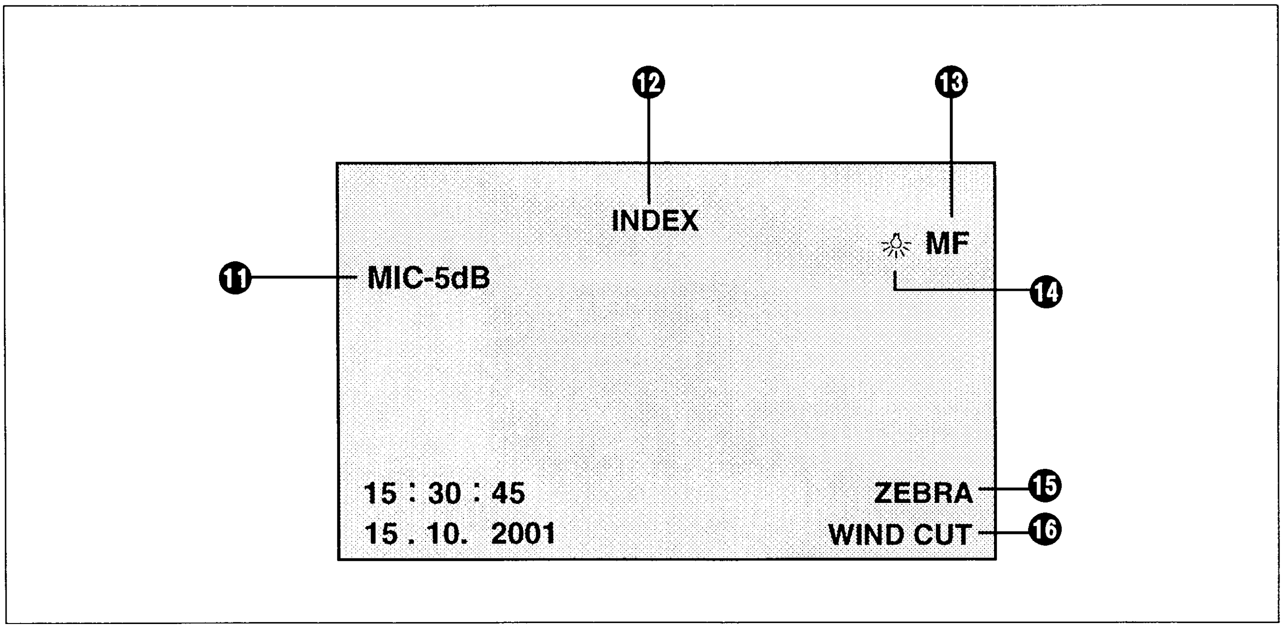
① Bandzählwerk-Anzeige
② Bandzählwerk-Anzeige mit Speicherstopp-Funktionsanzeige
③ Timecode-Anzeige
④ Keine Anzeige
(In diesem Modus können nur die folgenden Anzeigen erscheinen:
Bandlauf-Anzeigen, Warn- und Alarm-Anzeigen, Datum/Uhrzeit, Belichtungsautomatik-Programme, manueller Scharfeinstellungs-Modus, Weißabgleich-Modus und Zoom-Vergrößerung.)

ENGLISH

Changing the Indications

By changing the setting for [DISPLAY] on the Menu (➜ 122–128) or by repeatedly pressing the [DISPLAY] Button on the Remote Controller (➜ 106), the Counter Display Mode can be changed in the order shown in the above illustrations ① to ④:

① Tape Counter Indication
② Tape Counter Indication with activated Memory Stop Indication
③ Time Code Indication
④ No Indication
(In this mode, only the Tape Run Indications, Warning/Alarm Indications, Date/Time Indications, Programme AE Mode Indications, Manual Focus Mode Indications, White Balance Mode Indications, and Zoom Magnification Indication can be displayed.)



DEUTSCH

⑪ Audiopegel

Diese Anzeige zeigt die für die Aufnahme gewählte Audiopegel an. Wenn diese Anzeige in Rot erscheint, wird dadurch angezeigt, daß der aufgenommene Ton verzerrt ist.

Wenn Sie [MIC LEVEL] im Menü für die Aufnahmefunktionen (→ 124) oder [AUDIO DUB] im Menü für die Wiedergabe-Funktionen (→ 128) auf [AUTO] einstellen, wird der Mikrofon-Empfindlichkeitspegel nicht angezeigt.

⑫ Index (→ 66)

INDEX: Diese Anzeige blinkt für einige Sekunden, während ein Index-Signal aufgezeichnet wird.

Suchlauf-Nummer (→ 70)

S1: Die angezeigte Zahl zeigt an, die wievielte Szene von der gegenwärtigen Szene aus abgespielt werden soll.

⑬ Manuelle Scharfeinstellung (→ 40)

Wenn Sie den manuellen Scharfeinstellungs-Modus wählen, erscheint die Anzeige [MF].

Wenn der Camerarecorder im Automatik-Modus ist, erscheint diese Anzeige nicht.

⑭ Weißabgleich-Modus (→ 86)

Der Weißabgleich-Modus bietet die folgenden möglichen Einstellungen mit den entsprechenden Anzeigen:

☼: Innenaufnahme-Modus (Glühlampen-Beleuchtung)
☀: Außenaufnahme-Modus
◪: Modus verriegelte Weißabgleich-Einstellung

Wenn der Camerarecorder im Automatik-Modus ist, erscheint keine der obigen 3 Anzeigen.

⑮ Zebramuster

Wenn Sie [ZEBRAPATT] im Menü (→ 124) auf [ON] einstellen, erscheint die Anzeige [ZEBRA].

⑯ Windschutzfilter [WIND CUT]

Wenn Sie [WIND CUT] im Menü (→ 126) auf [ON] einstellen, erscheint die Anzeige [WIND CUT].

ENGLISH

⑪ Audio Level

This indication shows the selected audio level for recording. When it is displayed in red, it indicates that the sound being recorded is distorted.

If you set [MIC LEVEL] on the Camera Mode Menu (→ 124), or [AUDIO DUB] on the VCR Mode Menu (→ 128) to [AUTO], the Microphone Sensitivity Level Indication does not appear.

⑫ Index (→ 66)

INDEX: The [INDEX] Indication flashes for a few seconds while an index signal is being recorded.

Search Number (→ 70)

S1: The figure indicates which number of scene ahead from the present scene is to be played back.

⑬ Manual Focus (→ 40)

If you select the Manual Focus Mode, the [MF] Indication is displayed.

When the Camera Recorder is in the Auto Mode, this indication is not displayed.

⑭ White Balance Mode (→ 86)

The White Balance Mode offers the following possible settings:

☼: Indoor (Incandescent Lamp) Mode
☀: Outdoor Mode
◪: Lock Mode

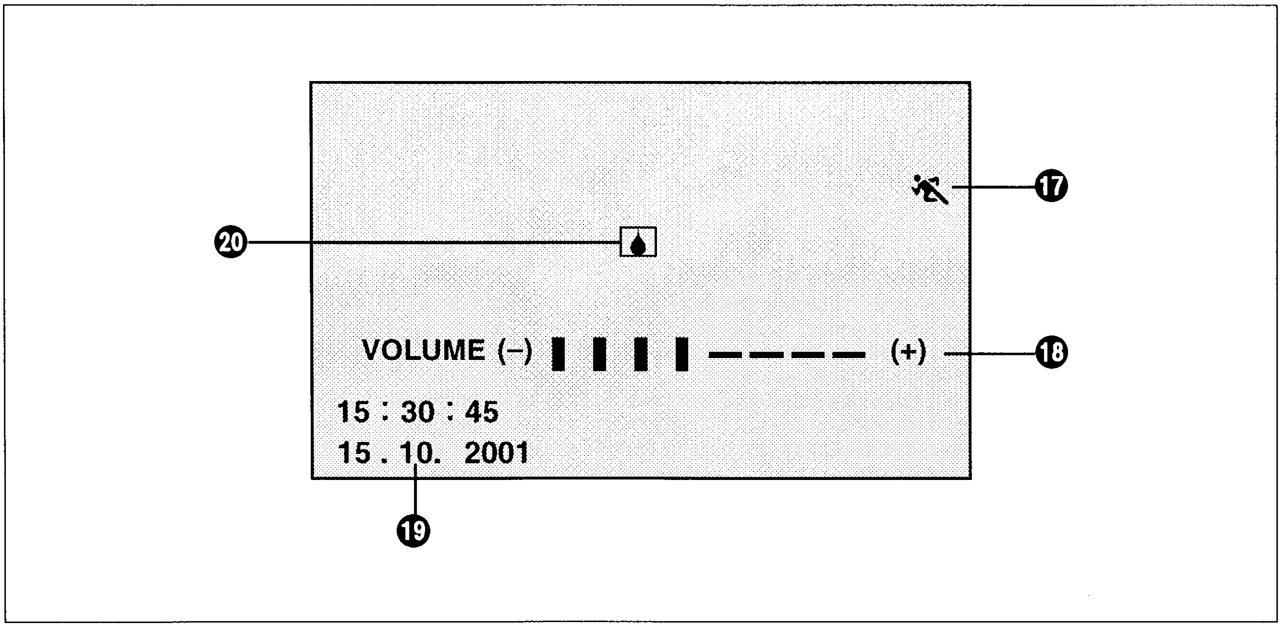
When the Camera Recorder is in the Auto Mode, none of the above 3 indications are displayed.

⑮ Zebra Pattern

If you set [ZEBRAPATT] on the Menu (→ 124) to [ON], the [ZEBRA] Indication is displayed.

⑯ Wind Buffer [WIND CUT]

If you set [WIND CUT] on the Menu (→ 126) to [ON], the [WIND CUT] Indication is displayed.



DEUTSCH

⑰ Belichtungsautomatik-Programm-Modus (➔ 74)

Die Belichtungsautomatik-Programmfunktion bietet folgende Einstellungen mit den entsprechenden Anzeigen:

🏃 :	Aufnahmemodus Sport
👥 :	Aufnahmemodus Porträt
🕯 :	Aufnahmemodus Schwachlicht

⑱ Lautstärke (➔ 50)

Anhand dieser Anzeigen können Sie die Lautstärke des Wiedergabetons vom eingebauten Lautsprecher regeln.
Wenn die Lampe [VCR] leuchtet, den Regler [PUSH] gedrückt halten, bis die Anzeige [VOLUME] erscheint. Anschließend können Sie durch Drehen des Reglers [PUSH] die Lautstärke regeln.

⑲ Datum und Uhrzeit (➔ 50)

Die Zeit wird im 24-Stunden-System angezeigt.

⑳ Warnung/Alarm

Wenn eine der folgenden Anzeigen leuchtet oder blinkt, sollte der Zustand des Camerarecorders geprüft werden.

[💧]:	Im Camerarecorder hat sich Kondensation gebildet. (➔ 140)
📼:	Der Löschschutzschieber der eingesetzten Cassette ist geöffent (auf [SAVE] eingestellt). Es ist keine Cassette eingesetzt.
🔋:	Die eingebaute Batterie ist entladen. (➔ 132)
⊗:	Die Videoköpfe sind verschmutzt.
📼END:	Während der Aufnahme: Das Band hat sein Ende erreicht.
REMOTE:	Falscher Fernbedienungs-Modus ist gewählt. (➔ 114)
PRINTER ERROR:	Diese Anzeige erscheint, wenn Sie [AUTOPRINT] im Menü auf [ON] einstellen, obwohl kein Drucker am Camerarecorder angeschlossen ist.

ENGLISH

⑰ Programme AE Mode (➔ 74)

The Programme AE Function offers the following settings:

🏃 :	Sports Mode
👥 :	Portrait Mode
🕯 :	Low Light Mode

⑱ Sound Volume (➔ 50)

Use this indication to adjust the volume of the playback sound from the built-in speaker.
With the [VCR] Lamp lit, keep the [PUSH] Dial pressed until the [VOLUME] Indication appears. Then turn the [PUSH] Dial to adjust the volume.

⑲ Date and Time (➔ 50)

The time is indicated in the 24-hour system.

⑳ Warning/Alarm

When any of the following indications lights or flashes, confirm the condition of the Camera Recorder.

[💧]:	Condensation has occurred. (➔ 140)
📼:	The erasure prevention slider of the inserted cassette is open (set to [SAVE]). No cassette is inserted.
🔋:	The built-in battery is discharged. (➔ 132)
⊗:	The heads are dirty.
📼END:	During recording, the tape has reached its end.
REMOTE:	Wrong Remote Controller Mode is selected. (➔ 114)
PRINTER ERROR:	This indication is displayed if you set [AUTOPRINT] on the Menu to [ON] when no printer is connected to the Camera Recorder.

Vor Inanspruchnahme des Kundendienstes (Probleme und Abhilfe)

Stromversorgung

P1: Der Camerarecorder kann nicht eingeschaltet werden.
A1: Ist der Akku oder der Netzadapter richtig angeschlossen? Die Anschlußverbindung überprüfen. (➜ 20)

P2: Der Camerarecorder hat sich automatisch ausgeschaltet.
A2: Wenn Sie den Camerarecorder länger als 6 Minuten im Aufnahmepause-Modus lassen, schaltet er sich automatisch aus, um das Band zu schützen und Akkustrom zu sparen. (➜ 34)

P3: Der Camerarecorder schaltet sich sofort wieder aus.
A3-1: Ist der Akku entladen? Wenn die Akkuspannungs-Anzeige blinkt, oder die Anzeige [▭] erscheint, ist der Akku entladen. Den Akku aufladen oder einen anderen vollständig aufgeladenen Akku einsetzen. (➜ 22, 160)
A3-2: Hat sich im Innern des Camerarecorders Kondensation gebildet? Wird er von einem kalten an einen warmen Ort gebracht, kann sich Kondensation bilden. In diesem Fall schaltet er sich automatisch aus und, mit Ausnahme von Herausnehmen der Cassette, lassen sich am Camerarecorder keine Funktionen auslösen. Warten, bis die Kondensationsanzeige verschwindet. (➜ 140)

Akku

P1: Der Akku entlädt sich schnell.
A1-1: Ist der Akku vollständig aufgeladen? Den Akku immer so lange aufladen, bis die Ladeanzeigelampe am Netzadapter erlischt. (➜ 22)
A1-2: Benutzen Sie den Akku an einem sehr kalten Ort? Die Leistung des Akkus hängt stark von der Umgebungstemperatur ab. In kalter Umgebung sinkt die Betriebsdauer beträchtlich. (➜ 136)
A1-3: Hat der Akku das Ende seiner Lebenszeit erreicht? Die Lebenszeit des Akkus ist beschränkt, sie hängt jedoch stark davon ab, wie der Akku benutzt und aufgeladen wird. Wenn seine mögliche Betriebszeit sogar nach korrektem Aufladen für den normalen Einsatz zu kurz ist, so hat er das Ende seiner Lebenszeit erreicht.
P2: Der Akku wird nicht geladen.
S2: Wenn das Gleichstromkabel an das Netzgerät angeschlossen ist, ist Laden nicht möglich. Trennen Sie das Gleichstromkabel ab.

Before Requesting Service (Problems & Solutions)

Power Supply

P1: The Camera Recorder does not turn on.
S1: Is the Battery or the AC Adapter connected correctly? Confirm the connection. (➜ 20)

P2: The Camera Recorder has turned off automatically.
S2: If you leave the Camera Recorder in the Recording Pause Mode for more than 6 minutes, it automatically switches off to protect the tape and to conserve battery power. (➜ 34)

P3: The Camera Recorder quickly turns off.
S3-1: Is the Battery discharged? When the Remaining Battery Power Indication is flashing or the [▭] Indication is displayed, the Battery is discharged. Charge the Battery or insert a fully charged Battery. (➜ 22, 160)
S3-2: Has condensation formed? If the Camera Recorder is brought from a cold to a warm place, condensation may form inside. In this case, the Camera Recorder automatically switches off and no operation can be performed except taking out the cassette. Wait until the Condensation Indication disappears. (➜ 140)

Battery

P1: The Battery discharges quickly.
S1-1: Is the Battery fully charged? Charge it until Charge Lamp on the AC Adapter goes off. (➜ 22)
S1-2: Are you using the Battery in a place where the temperature is very low? The ambient temperature greatly influences the Battery’s performance. Its operation time becomes shorter in a cold place. (➜ 136)
S1-3: Has the Battery reached the end of its service life? The service life of the Battery is limited. It depends on the way the Battery is used, but when the operation time even after proper charging is too short for normal use, the service life of the Battery has reached its end.
P2: The Battery cannot be charged.
S2: If the DC Input cable is connected to the AC Adapter, charging is not possible. Disconnect the DC Input cable.

Normales Aufnehmen

P1: Die Aufnahme kann nicht gestartet werden, obwohl der Camerarecorder mit Strom versorgt wird und die Cassette richtig eingesetzt ist.

A1-1: Ist der Löschschutzschieber der Cassette geöffnet? Falls er geöffnet ist (auf [SAVE] gestellt), kann nicht aufgenommen werden. (➜ 26)

A1-2: Hat das Band sein Ende erreicht? Eine neue Cassette einsetzen. (➜ 26)

A1-3: Ist der Camerarecorder eingeschaltet? (➜ 34)

A1-4: Leuchtet die Lampe [VCR]? Falls sie leuchtet, kann nicht aufgenommen werden. (➜ 50)

A1-5: Ist die Kondensationsanzeige [💧] sichtbar? Wenn sich Kondensation gebildet hat, können, mit Ausnahme von Herausnehmen der Cassette, am Camerarecorder keine Funktionen ausgelöst werden. Warten, bis die Kondensationsanzeige nicht mehr erscheint. (➜ 140)

Anderes Aufnehmen

P1: Das Bild auf dem LCD-Monitor/im Sucher steht für einige Sekunden still.

A1-1: Haben Sie die Taste [PHOTO SHOT] gedrückt? Durch Drücken der Taste [PHOTO SHOT] wird für ca. 7 Sekunden ein Standbild aufgezeichnet. Danach schaltet der Camerarecorder wieder auf Aufnahmepause um. (➜ 44)

A1-2: Haben Sie die Standbild-Taste [❚❚] gedrückt? Wenn Sie die Standbild-Taste [❚❚] drücken, steht das Bild still. Ganz einfach diese Taste erneut drücken, um auf das laufende Bild zurückzuschalten. (➜ 48)

P2: Die automatische Scharfeinstellung funktioniert nicht.

A2-1: Ist die manuelle Scharfeinstellungs-Funktion gewählt? Wenn Sie die automatische Scharfeinstellungs-Funktion wählen, stellt der Camerarecorder automatisch scharf ein. (➜ 40)

A2-2: Ist der Bildgegenstand oder die Aufnahmesituation für automatische Scharfeinstellung geeignet? Für gewisse Motive und Aufnahmesituation ist der Auto Focus-Modus nicht zweckmäßig. In diesen Fällen sollte mit der manuellen Scharfeinstellungs-Funktion scharf eingestellt werden. (➜ 152)

Editieren

P1: Nachvertonung kann nicht durchgeführt werden.

A1-1: Ist der Löschschutzschieber der Cassette geöffnet? Wenn er auf [SAVE] gestellt ist, ist das Editieren nicht möglich. (➜ 26)

A1-2: Versuchen Sie, auf Bandabschnitte, die im LP-Modus aufgezeichnet wurden, Nachvertonung durchzuführen? Da die im LP-Modus aufgezeichneten Spuren schmaler sind als die Köpfe, ist eine Nachvertonung nicht möglich. (➜ 28)

Normal Recording

P1: Recording cannot be started even though the Camera Recorder is supplied with power and the cassette is inserted correctly.

S1-1: Is the erasure prevention slider of the cassette open? If it is open (set to [SAVE]), recording is not possible. (➜ 26)

S1-2: Has the tape reached its end? Insert a new cassette. (➜ 26)

S1-3: Is the Camera Recorder turned on? (➜ 34)

S1-4: Is the [VCR] Lamp lit? If it is lit, recording is not possible. (➜ 50)

S1-5: Is the Condensation Indication [💧] displayed? When condensation has formed, no functions except taking out the cassette can be operated. Wait until the Condensation Indication disappears. (➜ 140)

Other Recording

P1: The picture on the LCD Monitor/in the Finder suddenly stands still for a few seconds.

S1-1: Did you press the [PHOTO SHOT] Button? If you press the [PHOTO SHOT] Button, a still picture is recorded for approximately 7 seconds. After approximately 7 seconds, the Camera Recorder switches back to the Recording Pause Mode. (➜ 44)

S1-2: Did you press the Still Button [❚❚]? If you press the Still Button [❚❚], the picture stands still. Simply press this button again to return to the normal moving picture. (➜ 48)

P2: The Auto Focus Function does not work.

S2-1: Is the Manual Focus Mode selected? If you select the Auto Focus Mode, the focus is adjusted automatically. (➜ 40)

S2-2: Is the subject or recording situation suitable for the Auto Focus Mode? The Auto Focus Function does not work correctly for some kinds of subjects and recording situations. In this case, use the Manual Focus Mode to adjust the focus. (➜ 152)

Editing

P1: Audio dubbing cannot be performed.

S1-1: Is the erasure prevention slider of the cassette open? If it is open (set to [SAVE]), editing is not possible. (➜ 26)

S1-2: Are you trying to edit parts of the tape recorded in the LP Mode? As the tracks recorded in the LP Mode are narrower than the heads, audio dubbing is not possible. (➜ 28)

Anzeigen

P1: Der angezeigte Timecode ist nicht korrekt.

A1: Bei Zeitlupen-Wiedergabe rückwärts ist das Zählwerk der Timecode-Anzeige nicht stabil. Dies ist jedoch keine Funktionsstörung.

P2: Die Bandrestzeit-Anzeige verschwindet.

A2: Wenn Sie ein Standbild im Photoshot-Modus aufzeichnen, verschwindet die Bandrestzeit-Anzeige vorübergehend. Wenn Sie jedoch erneut im normalen Aufnahmemodus aufzeichnen, erscheint sie erneut.

P3: Die Bandrestzeit-Anzeige entspricht nicht der effektiv auf dem Band verbleibende Zeit.

A3-1: Wenn Sie wiederholt Szenen von weniger als 15 Sekunden aufzeichnen, wird die Bandrestzeit nicht korrekt angezeigt.

A3-2: Die angezeigte Bandrestzeit kann u. U. 2 - 3 Minuten kürzer sein, als die effektiv auf dem Band verbleibende Zeit.

Wiedergabe (Bild)

P1: Beim Drücken der Wiedergabe-Taste [▶] wird kein Bild wiedergegeben.

A1: Haben Sie die Taste [VCR/CAMERA] gedrückt, so daß die Lampe [VCR] leuchtet? Wenn die Lampe [VCR] nicht leuchtet, kann keine Wiedergabe-Funktion ausgelöst werden. (➜ 50)

P2: Mosaikartige Muster erscheinen im Bild während Bildsuchlauf vorwärts und rückwärts oder Zeitlupen-Wiedergabe.

A2: Dabei handelt es sich um eine für das Digital-Video-System typische Erscheinung. Dies ist keine Funktionsstörung. (➜ 52)

P3: Der Camerarecorder ist korrekt an ein Fernsehgerät angeschlossen, aber es erscheint kein Wiedergabebild.

A3: Haben Sie am Fernsehgerät „Video-Eingang“ gewählt. Lesen Sie bitte die Bedienungsanleitung Ihres Fernsehgerätes durch und wählen Sie das Programm, das den für die Anschlußverbindung benutzten Eingangsbuchsen entspricht.

P4: Das Wiedergabebild ist nicht klar und sauber.

A4: Sind die Videoköpfe des Camerarecorders verschmutzt? Wenn die Köpfe verschmutzt sind, kann das Bild nicht sauber wiedergegeben werden.

Indications

P1: The Time Code becomes incorrect.

S1: In the Slow Motion Playback Mode in reverse direction, the counter of the Time Code Indication may not be stable, however, this is not a malfunction.

P2: The Remaining Tape Time Indication disappears.

S2: If you record a still picture in the Photoshot Mode, the Remaining Tape Time Indication disappears temporarily. However, if you switch the Camera Recorder over to the Normal Recording Mode, it appears again.

P3: The Remaining Tape Time Indication does not match the actual remaining tape time.

S3-1: If scenes of less than 15 seconds are recorded successively, the remaining tape time is not indicated correctly.

S3-2: The Remaining Tape Time Indication may show a remaining tape time that is 2 - 3 minutes shorter than the actual remaining tape time.

Playback (Picture)

P1: No playback picture is reproduced when pressing the Play Button [▶].

S1: Did you press the [VCR/CAMERA] Button so that the [VCR] Lamp lights? When the [VCR] Lamp is not lit, no playback functions can be operated. (➜ 50)

P2: Mosaic-like patterns appear in the picture during Cue, Review or Slow Motion Playback.

S2: This phenomenon is a characteristic of the digital video system. This is not a malfunction. (➜ 52)

P3: The Camera Recorder is correctly connected to a TV, but no playback picture is reproduced.

S3: Did you select “Video Input” on the TV? Carefully read the operating instructions for your TV and select the channel that matches the input sockets used for connection.

P4: The playback picture is not reproduced clearly.

S4: Are the video heads on the Camera Recorder dirty? If the video heads are dirty, the picture cannot be played back clearly.

Wiedergabe (Ton)

P1: Vom eingebauten Lautsprecher des Camerarecorders wird kein Ton wiedergegeben.

A1: Ist die Lautstärke zu niedrig eingestellt? Wenn die Lampe [VCR] leuchtet, den Regler [PUSH] gedrückt halten, bis die Anzeige [VOLUME] erscheint. Anschließend durch Drehen des Reglers [PUSH] die Lautstärke einstellen. (➜ 50)

P2: Verschiedene Tonspuren werden gemischt wiedergegeben.

A2: Ist [AUDIO OUT] im Menü für die Wiedergabefunktionen auf [MIX] eingestellt? Wenn Sie auf einer Cassette, für die Sie vor dem Aufnehmen [AUDIO REC] auf [12bit] eingestellt hatten, Nachvertonung durchgeführt haben, werden der Ton der Originalaufnahme und der mit Nachvertonung hinzugefügte Ton zusammen wiedergegeben. Es ist aber auch möglich, die Spuren getrennt wiederzugeben. (➜ 104)

P3: Der Ton der Originalaufnahme wurde durch die Nachvertonung gelöscht.

A3: Wenn Sie auf einer Aufnahme, die Sie im [16bit]-Modus (➜ 102) gemacht haben, Nachvertonung durchführen, wird der Originalton gelöscht. Wenn Sie den Originalton beibehalten möchten, müssen Sie vor Aufnahmebeginn unbedingt den [12bit]-Modus wählen.

Diverses

P1: Die Cassette kann nicht herausgenommen werden.

A1: Wird der Camerarecorder mit Strom versorgt? Ist der Netzadapter korrekt angeschlossen bzw. der Akku richtig eingesetzt? Zum Herausnehmen des Akkus muß der Camerarecorder mit Strom versorgt werden, der Schalter [POWER] muß jedoch nicht auf [ON] gestellt werden.

P2: Mit Ausnahme von Herausnehmen der Cassette kann keine Funktion ausgelöst werden.

A2: Ist die Kondensationsanzeige [💧] sichtbar? Wenn sich im Innern des Camerarecorders Kondensation gebildet hat, schaltet er automatisch ab, und, mit Ausnahme von Herausnehmen der Cassette, ist jeglicher Betrieb vorübergehend gesperrt. Warten, bis die Kondensationsanzeige verschwindet. (➜ 140)

P3: Die Fernbedienung funktioniert nicht.

A3-1: Ist die Knopfzelle in der Fernbedienung erschöpft? Wenn die Fernbedienung auch ganz nahe beim Fernbedienungs-Sensor am Camerarecorder nicht funktioniert, ist die Knopfzelle erschöpft. Durch eine neue Knopfzelle ersetzen. (➜ 112)

A3-2: Ist der richtige Fernbedienungs-Modus gewählt? Wenn die Einstellung für [REMOTE] im Menü und der an der Fernbedienung gewählte Modus nicht übereinstimmen, kann der Camerarecorder nicht fernbedient werden, und die Anzeige [REMOTE] erscheint. (➜ 114)

Playback (Sound)

P1: No sound is played back from the Camera Recorder’s built-in speaker.

S1: Is the volume set too low? With the [VCR] Lamp lit, keep the [PUSH] Dial pressed until the [VOLUME] Indication appears. Then turn the [PUSH] Dial to adjust the volume. (➜ 50)

P2: Different sounds are played back together.

S2: Is [AUDIO OUT] set to [MIX] on the VCR Mode Menu? If you have performed audio dubbing on a cassette for which you set [AUDIO REC] to [12bit] for recording, the original sound and the sound dubbed with audio dubbing are played back together. It is also possible to play them back individually. (➜ 104)

P3: The original sound was erased by performing audio dubbing.

S3: If you perform audio dubbing on a recording made in the [16bit] Mode (➜ 102), the original sound is erased. If you want to keep the original sound, be sure to select the [12bit] Mode for the original recording.

Others

P1: The cassette cannot be taken out.

S1: Is the Camera Recorder supplied with power? Is the AC Adapter correctly connected or the Battery correctly inserted? To remove the cassette, the Camera Recorder must be supplied with power, however, it is not necessary to set the [POWER] Switch to [ON].

P2: No operation except taking out the cassette can be performed.

S2: Is the Condensation Indication [💧] displayed? If condensation has formed inside the Camera Recorder, it automatically switches off and prevents any operation except taking out the cassette. Wait until the Condensation Indication disappears.
(➜ 140)

P3: The Remote Controller does not work.

S3-1: Is the button-type battery in the Remote Controller exhausted? If the Remote Controller does not work when you use it near the Remote Controller Sensor on the Camera Recorder, the button-type battery is exhausted. Replace it with a new battery. (➜ 112)

S3-2: Is the correct Remote Controller Mode selected? If the Camera Recorder’s setting for [REMOTE] on the Menu and the mode selected on the Remote Controller are not matched, operating the Camera Recorder with the Remote Controller is not possible and the [REMOTE] Indication is displayed. (➜ 114)

Technische Daten

Digital-Camerarecorder — Informationen für Ihre Sicherheit

Stromversorgung: Gleichstrom 7,2 V/7,9 V
Leistungsaufnahme: Aufnahmebetrieb 9,2 W (Einsatz des Suchers) 10,8 W (Einsatz des LCD-Monitors)

Aufnahmeformat: Digital-Video, SD-Format
Bandformat: Mini-DV
Aufnahmesignale: 625i (PAL)
Aufnahme-Audiosignale: 16 Bit, 48 kHz für 2 Kanäle; 12 Bit, 32 kHz für 4 Kanäle
Aufnahmespuren: Schrägspuren für digitale Video- und Audiosignale: Schrägspur
Zeitcode: Schrägspur (Hilfscodebereich)
Bandgeschwindigkeit: 18,831 mm/s (SP-Modus), 12,568 mm/s (LP-Modus)
Aufnahmezeit: 60 Minuten (im SP-Modus mit AY-DVM60) 90 Minuten (im LP-Modus mit AY-DVM60)
Bandsorte: ME-Bänder von 6,35 mm Breite (Mini-DV-Cassettenbänder)
Umspulzeit: Weniger als 80 s (mit AY-DVM60)

Video (Analoge FBAS-Ausgabe)
Abtastfrequenz: 13,5 MHz für Y, 3,375 MHz für P_B/P_R
Quantisierung: 8 Bit
Video-Komprimierung: DCT + Code mit variabler Länge
Fehlerkorrektur: Reed-Solomon Product Code

Audio (Digital-Audio)
Abtastfrequenz: 48 kHz/32 kHz
Quantisierung: 16 Bit/12 Bit

Video-Ausgangssignale
Monitor-Ausgang: Phono × 1, 1,0 Vs-s, 75 Ohm
S-VIDEO-Ausgang: S-VIDEO × 1, 75 Ohm, Y: 1,0 Vs-s, C: 0,3 Vs-s

Audio-Ein-/Ausgangssignale
Mikrofon-Eingang: 3,5 mm, Stereo-Minibuchse (–70 dBv, hohe Impedanz)
XLR-Eingang (CH1/CH2): Hohe Impedanz, 0/–60 dBu (LINE/MIC wählbar)
Eingebaut Microfon: Stereo
Audio-Ausgang: Phono × 2 (CH1/CH2), –10 dBv, niedrige Impedanz
Kopfhörer-Ausgang: 3,5 mm, Stereo-Minibuchse

Sonstige Ein-/Ausgangssignale
Digitale Schnittstelle: 4-polig (DV E/A-Anschluß, entspricht IEEE 1394, 4P)

Kameraeinheit
Aufnahmevorrichtung: 1/4-Zoll, 510H × 3 CCD (Pixelversatzsystem)
Anzahl der Pixel: 320.000
Empfindlichkeit: 1.400 Lux
Minimale Beleuchtungsstärke: 5 Lux (im Digital-Aufhellungsmodus)
Rauschabstand: 46 dB
Horizontalauflösung: 460 Linien
Abtastfrequenz: 13,5 MHz/27 MHz
Verschlußzeiten: 1/50 bis 1/8000 s (14 Stufen)
Verstärkungs-Umschaltung: 0, 3, 6, 9, 12, 18 dB
Optisches Farbtrennungssystem: Prismensystem
Objektiv: Blendenautomatik, 12x Motorzoomobjektiv, F1,6, f=4,16 bis 47,66 mm
Abmessungen: 211 (B) × 224 (H) × 431 (T) mm
Gewich: 2,3 kg (ohne Akku) 2,5 kg (mit Akku, Tragriemen und Cassette)
Betriebstemperatur: 0°C–40°C
Luftfeuchtigkeit: 10%–80% (ohne Kondensabbildung)

Specifications

Digital Video Camera — Information for your safety

Power Source: DC 7.2/7.9 V
Power Consumption: Recording 9.2 W (When using Finder) 10.8 W (When using LCD Monitor)

Recording format: Digital video SD format
Tape format: Mini-DV
Recording signals: 625i (PAL)
Recording audio signals: 16 bits, 48 kHz for 2 channels; 12 bits, 32 kHz for 4 channels
Recording tracks: Helical tracks for digital video and audio: Helical track
Time code: Helical track (sub-code area)
Tape speed: 18.831 mm/sec (SP mode), 12.568 mm/sec (LP mode)
Recording time: 60 minutes (in SP mode using AY-DVM60) 90 minutes (in LP mode using AY-DVM60)
Tape used: 6.35 mm wide ME tapes (Mini-DV cassette tapes)
FF/REW time: Less than 80 sec. (using AY-DVM60)

Video (Analog composite OUT)
Sampling frequency: 13.5 MHz for Y, 3.375 MHz for P_B/P_R
Quantizing: 8 bits
Video compression system: DCT + variable-length code
Error correction: Reed-Solomon product code

Audio (Digital audio)
Sampling frequency: 48 kHz/32 kHz
Quantizing: 16 bits/12 bits

Video output signals
Monitor output: Phono × 1, 1.0 Vp-p, 75 ohms
S-VIDEO output: S-VIDEO × 1, 75 ohms, Y: 1.0 Vp-p, C: 0.3 Vp-p

Audio input/output signals
MIC input: 3.5 mm, stereo-mini jack (–70 dBv, high impedance)
XLR input (CH1/CH2): High impedance, 0/–60 dBu (LINE/MIC selectable)
Built-in microphone: Stereo
Audio output: Phono × 2 (CH1/CH2), –10 dBv, low impedance
Headphone output: 3.5 mm, stereo-mini jack

Other input/output signals
Digital interface: 4 pins (DV I/O connector, compliant with IEEE 1394, 4P)

Camera unit
Pickup device: 1/4-inch, 510H × 3 CCD (pixel offset system)
Number of pixels: 320,000
Sensitivity: 1,400 lux
Minimum brightness: 5 lux (in digital increased gain mode)
Signal-to-noise ratio: 46 dB
Horizontal resolution: 460 lines
Sampling frequency: 13.5 MHz/27 MHz
Shutter speed: 1/50 to 1/8000 (14 steps)
Gain switching: 0, 3, 6, 9, 12, 18 dB
Color separation optical system: Prism system
Lens: Automatic iris, 12X motorized zoom lens, F1.6, f=4.16 to 47.66 mm
Dimennsions: 211 (W) × 224 (H) × 431 (T) mm
Weight: 2.3 kg (without battery) 2.5 kg (with battery, shoulder strap and cassette)
Operating Temperature: 0°C–40°C
Operating Humidity: 10%–80% (no condensation)

DEUTSCH

Technische Daten

Netzadapter

Informationen für Ihre Sicherheit

Stromversorgung:	Wechselstrom 100–240 V, 50/60 Hz
Leistungsaufnahme:	20 Watt
Gleichstrom-Ausgang:	Gleichstrom 7,9 V, 1,4 A (Camerarecorder-Betrieb) 8,4 V, 1,2 A (Aufladen des Akkus)

Abmessungen:	70 (B) × 44,5 (H) × 116 (T) mm
Gewicht:	ca. 160 g

Bei Gewicht und Abmessungen handelt es sich um Näherungswerte.
Änderungen der technischen Daten vorbehalten.

ENGLISH

Specifications

AC Adapter

Information for your safety

Power Source:	AC 100–240 V, 50/60 Hz
Power Consumption:	20W
DC Output:	DC 7.9 V, 1.4 A (Camera Recorder Operation) DC 8.4 V, 1.2 A (Battery Charging)

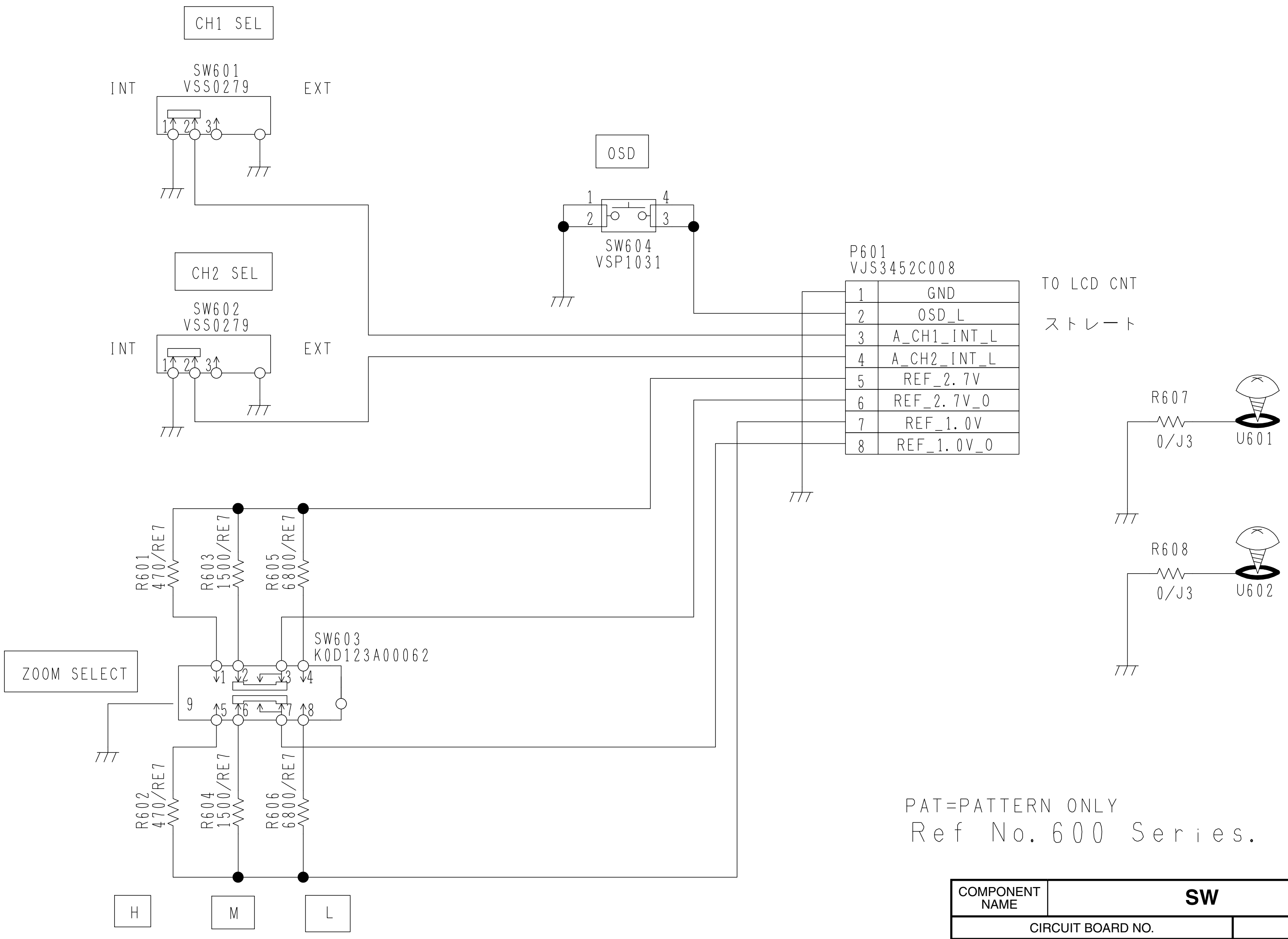
Dimensions:	70 (W) × 44.5 (H) × 116 (D) mm
Weight:	Approx. 160 g

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-8691, Japan

Printed in Japan
VQT9246

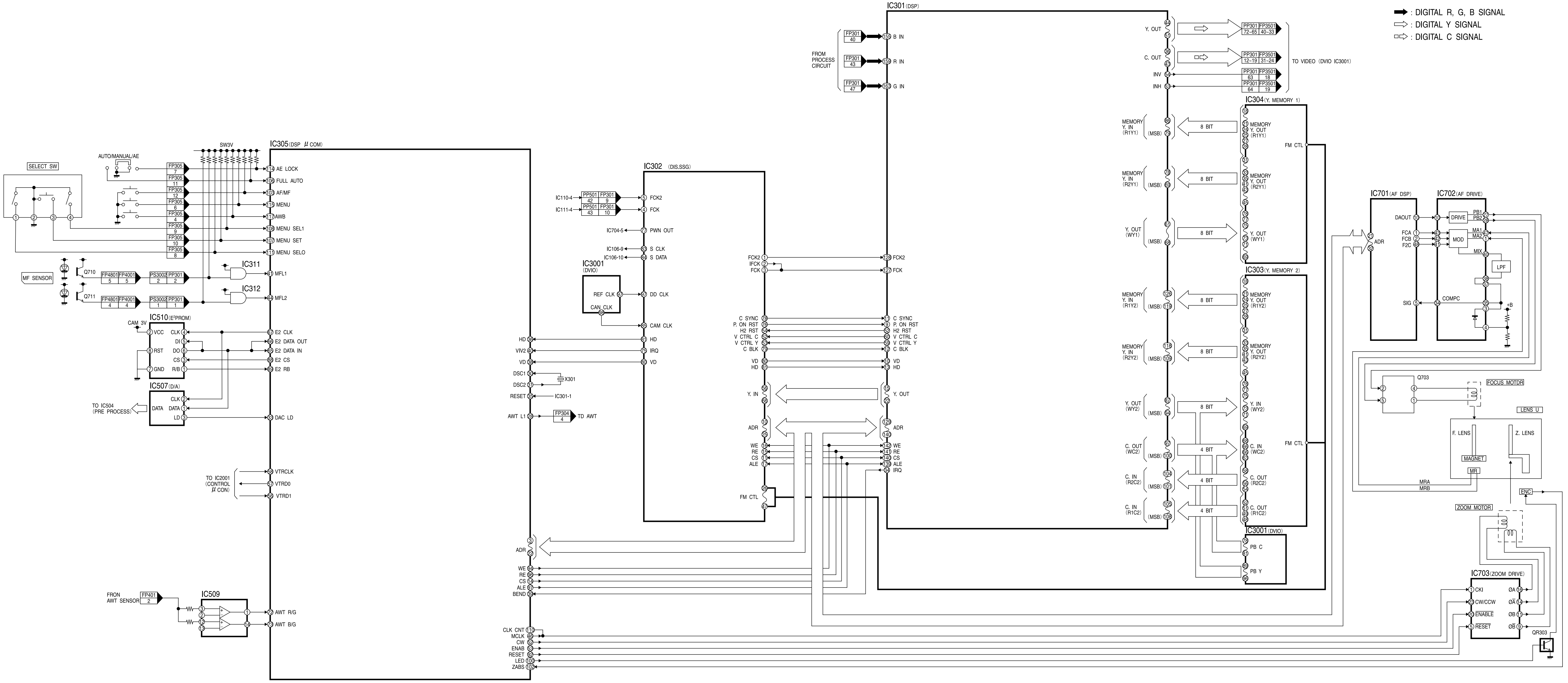
F0201H1031 D E


CH1 SEL
SW601
VSS0279
INT
EXT
1
2
3
OSD
1
4
2
3
SW604
VSP1031
CH2 SEL
SW602
VSS0279
INT
EXT
1
2
3
P601
VJS3452C008
TO LCD CNT
ストレート
1 GND
2 OSD_L
3 A_CH1_INT_L
4 A_CH2_INT_L
5 REF_2.7V
6 REF_2.7V_0
7 REF_1.0V
8 REF_1.0V_0
R607
0/J3
U601
R608
0/J3
U602
R601
470/RE7
R603
1500/RE7
R605
6800/RE7
SW603
K0D123A00062
ZOOM SELECT
1
2
3
4
5
6
7
8
9
R602
470/RE7
R604
1500/RE7
R606
6800/RE7
H
M
L
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J

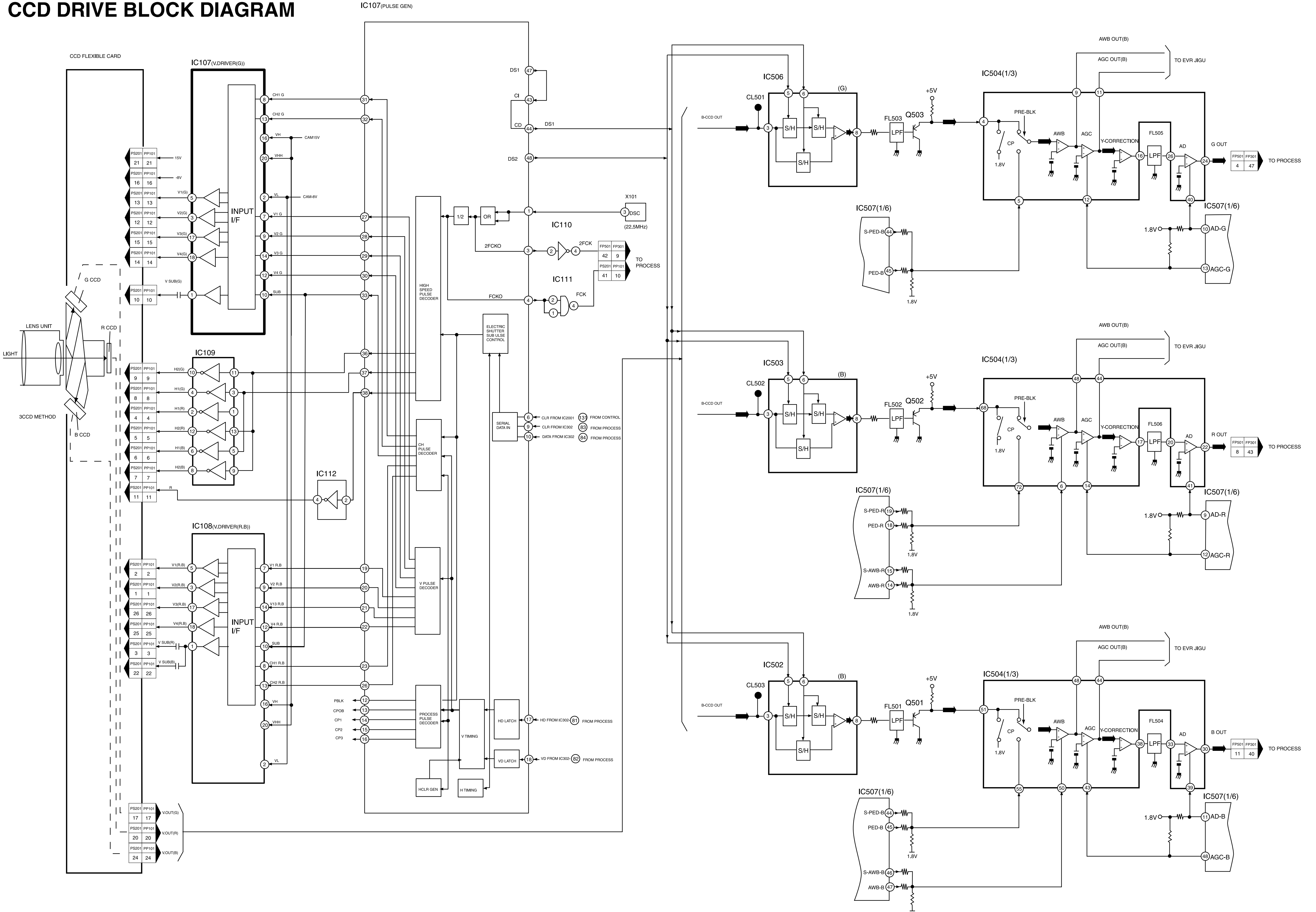
PAT=PATTERN ONLY
Ref No.600 Series.

COMPONENT NAME	SW	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP000T9	KR0Q62 SCM032	

PROCESS BLOCK DIAGRAM


: DIGITAL R, G, B SIGNAL
: DIGITAL Y SIGNAL
: DIGITAL C SIGNAL
IC301(DSP)
FROM PROCESS CIRCUIT
FP301 40
FP301 43
FP301 47
B IN
R IN
G IN
Y. OUT
C. OUT
INV
INH
PP301 FP3501 72~65 40~33
PP301 FP3501 12~19 31~24
PP301 FP3501 63 18
PP301 FP3501 64 19
TO VIDEO (DVIO IC3001)
IC304(Y. MEMORY 1)
IC303(Y. MEMORY 2)
MEMORY Y. IN (R1Y1)
MEMORY Y. OUT (R1Y1)
MEMORY Y. IN (R2Y1)
MEMORY Y. OUT (R2Y1)
Y. OUT (WY1)
Y. OUT (WY1)
MEMORY Y. IN (R1Y2)
MEMORY Y. OUT (R1Y2)
MEMORY Y. IN (R2Y2)
MEMORY Y. OUT (R2Y2)
Y. OUT (WY2)
Y. IN (WY2)
C. OUT (WC2)
C. IN (WC2)
C. IN (R2C2)
C. OUT (R2C2)
C. IN (R1C2)
C. OUT (R1C2)
(MSB)
8 BIT
4 BIT
FM CTL
IC3001(DVIO)
PB C
PB Y
IC302 (DIS.SSG)
FCK2
FCK
IFCK
PWN OUT
S CLK
S DATA
DD CLK
CAM CLK
HD
IRQ
VD
C SYNC
P. ON RST
H2 RST
V CTRL C
V CTRL Y
C BLK
Y. IN
Y. OUT
ADR
WE
RE
CS
ALE
IC110-4
IC111-4
PP501 FP301 42 9
PP501 FP301 43 10
IC704-5
IC106-9
IC106-10
IC3001 (DVIO)
REF CLK
CAN CLK
IC305(DSP μ COM)
SW3V
SELECT SW
AUTO/MANUAL/AE
FP305 7
FP305 11
FP305 12
FP305 6
FP305 4
FP305 9
FP305 10
FP305 8
AE LOCK
FULL AUTO
AF/MF
MENU
AWB
MENU SEL1
MENU SET
MENU SELO
IC311
IC312
MF SENSOR
Q710
Q711
FP4801 FP4001 5 5
FP4801 FP4001 4 4
PS3002 PP301 2 2
PS3002 PP301 1 1
MFL1
MFL2
IC510(E²PROM)
CAM 3V
VCC
RST
GND
CLK
DI
DO
CS
R/B
E2 CLK
E2 DATA OUT
E2 DATA IN
E2 CS
E2 RB
IC507(D/A)
TO IC504 (PRE PROCESS)
DATA
LD
DAC LD
HD
VIV2
VD
DSC1
DSC2
X301
RESET
IC301-1
AWT L1
FP304 4
TD AWT
TO IC2001 (CONTROL μ CON)
VTRCLK
VTRD0
VTRD1
ADR
WE
RE
CS
ALE
BEND
FRON AWT SENSOR
FP401 2
IC509
AWT R/G
AWT B/G
CLK CNT
MCLK
CW
ENAB
RESET
LED
ZABS
IC701(AF DSP)
IC702(AF DRIVE)
DAOUT
FCA
FCB
F2C
SIG
DRIVE
MOD
COMPC
PB1
PB2
MA1
MA2
MIX
LPF
+B
Q703
FOCUS MOTOR
LENS U
F. LENS
Z. LENS
MAGNET
MR
MRA
MRB
ENC
ZOOM MOTOR
IC703(ZOOM DRIVE)
CKI
CW/CCW
ENABLE
RESET
ØA
ØA
ØB
ØB
QR303

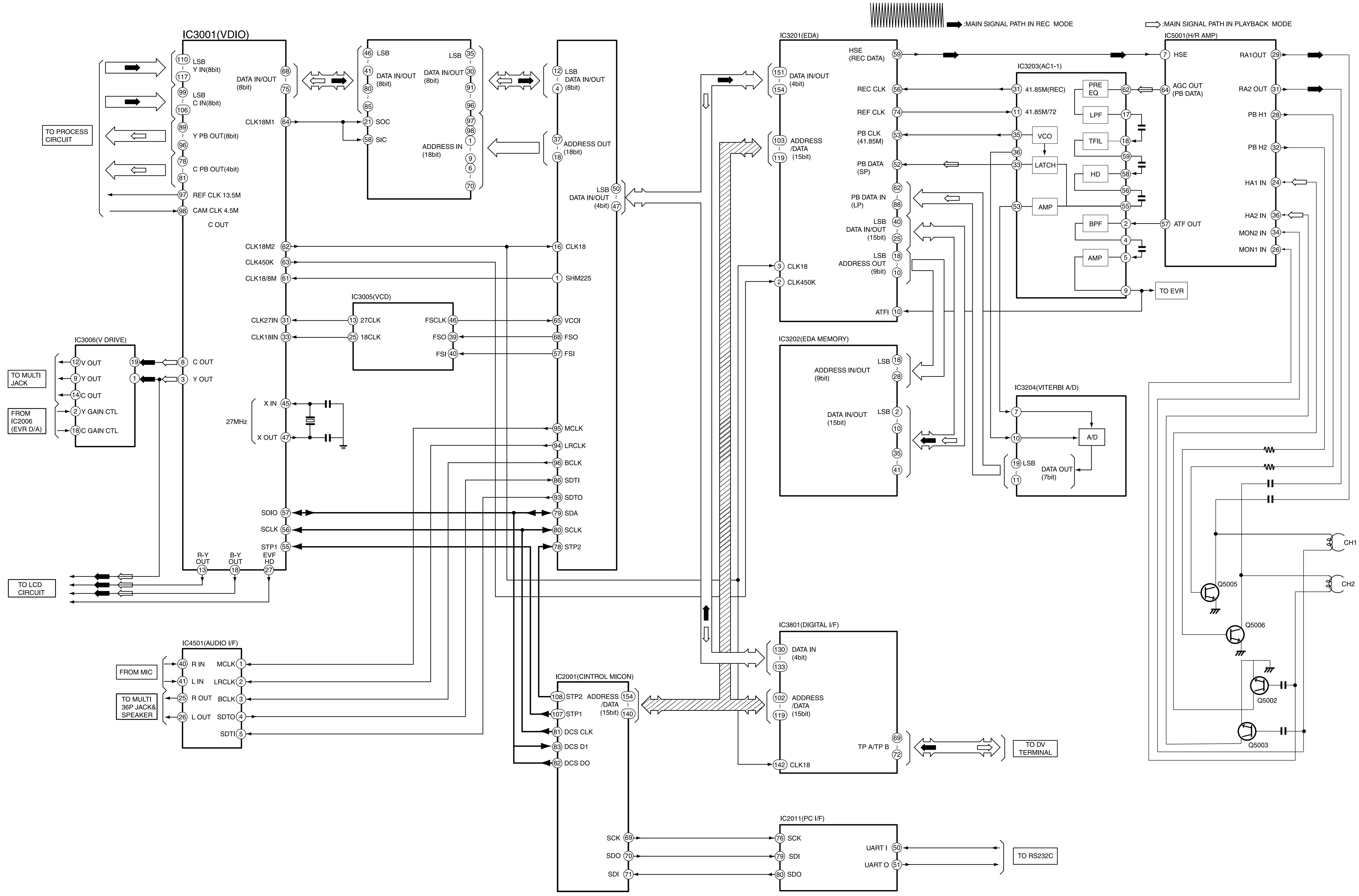
CCD DRIVE BLOCK DIAGRAM


IC107(PULSE GEN)
CCD FLEXIBLE CARD
IC107(V.DRIVER(G))
INPUT I/F
CH1 G
CH2 G
VH
VHH
CAM15V
VL
CAM-8V
V1 G
V2 G
V3 G
V4 G
SUB
15V
-8V
V1(G)
V2(G)
V3(G)
V4(G)
V SUB(G)
PS201
PP101
G CCD
R CCD
B CCD
LENS UNIT
LIGHT
3CCD METHOD
IC109
H2(G)
H1(G)
H1(R)
H2(R)
H1(B)
H2(B)
R
IC112
IC108(V.DRIVER(R.B))
V1(R.B)
V2(R.B)
V3(R.B)
V4(R.B)
V SUB(R)
V SUB(B)
V13 R.B
CH1 R.B
CH2 R.B
V.OUT(G)
V.OUT(R)
V.OUT(B)
HIGH SPEED PULSE DECODER
CH PULSE DECODER
V PULSE DECODER
PROCESS PULSE DECODER
ELECTRIC SHUTTER SUB ULSE CONTROL
SERIAL DATA IN
V TIMING
H TIMING
HCLR GEN
HD LATCH
VD LATCH
PBLK
CPOB
CP1
CP2
CP3
DS1
CI
CD
DS2
1/2
OR
2FCKO
FCKO
IC110
IC111
2FCK
FCK
X101
DSC
(22.5MHz)
FP501
FP301
TO PROCESS
CLR FROM IC2001
CLR FROM IC302
DATA FROM IC302
FROM CONTROL
FROM PROCESS
HD FROM IC302
VD FROM IC302
IC506
CL501
(G)
B-CCD OUT
S/H
FL503
LPF
Q503
+5V
IC504(1/3)
PRE-BLK
CP
1.8V
AWB
AGC
Y-CORRECTION
FL505
AD
G OUT
AWB OUT(B)
AGC OUT(B)
TO EVR JIGU
IC507(1/6)
S-PED-B
PED-B
AD-G
AGC-G
IC503
CL502
(B)
FL502
Q502
FL506
R OUT
S-PED-R
PED-R
S-AWB-R
AWB-R
AD-R
AGC-R
IC502
CL503
FL501
Q501
FL504
B OUT
S-AWB-B
AWB-B
AD-B
AGC-B

BLK-5

BLK-6

VIDEO BLOCK DIAGRAM


:MAIN SIGNAL PATH IN REC MODE
:MAIN SIGNAL PATH IN PLAYBACK MODE
IC3001(VDIO)
LSB
Y IN(8bit)
LSB
C IN(8bit)
Y PB OUT(8bit)
C PB OUT(4bit)
REF CLK 13.5M
CAM CLK 4.5M
C OUT
DATA IN/OUT
(8bit)
CLK18M1
CLK18M2
CLK450K
CLK18/8M
CLK27IN
CLK18IN
X IN
27MHz
X OUT
C OUT
Y OUT
SDIO
SCLK
STP1
R-Y
OUT
B-Y
OUT
EVF
HD
TO PROCESS
CIRCUIT
TO LCD
CIRCUIT
LSB
DATA IN/OUT
(8bit)
LSB
DATA IN/OUT
(8bit)
SOC
SIC
ADDRESS IN
(18bit)
LSB
DATA IN/OUT
(8bit)
ADDRESS OUT
(18bit)
LSB
DATA IN/OUT
(4bit)
CLK18
SHM225
VCOI
FSO
FSI
MCLK
LRCLK
BCLK
SDTI
SDTO
SDA
SCLK
STP2
IC3005(VCD)
27CLK
18CLK
FSCLK
FSO
FSI
IC3006(V DRIVE)
V OUT
Y OUT
C OUT
Y GAIN CTL
C GAIN CTL
TO MULTI
JACK
FROM
IC2006
(EVR D/A)
IC4501(AUDIO I/F)
R IN
L IN
R OUT
L OUT
MCLK
LRCLK
BCLK
SDTO
SDTI
FROM MIC
TO MULTI
36P JACK&
SPEAKER
IC2001(CINTROL MICON)
STP2
STP1
DCS CLK
DCS D1
DCS DO
ADDRESS
/DATA
(15bit)
SCK
SDO
SDI
IC3201(EDA)
DATA IN/OUT
(4bit)
ADDRESS
/DATA
(15bit)
CLK18
CLK450K
HSE
(REC DATA)
REC CLK
REF CLK
PB CLK
(41.85M)
PB DATA
(SP)
PB DATA IN
(LP)
LSB
DATA IN/OUT
(15bit)
LSB
ADDRESS OUT
(9bit)
ATFI
IC3202(EDA MEMORY)
LSB
ADDRESS IN/OUT
(9bit)
LSB
DATA IN/OUT
(15bit)
IC3203(AC1-1)
41.85M(REC)
41.85M/72
PRE
EQ
LPF
VCO
TFIL
LATCH
HD
AMP
BPF
AMP
TO EVR
IC3204(VITERBI A/D)
A/D
LSB
DATA OUT
(7bit)
IC5001(H/R AMP)
HSE
AGC OUT
(PB DATA)
ATF OUT
RA1OUT
RA2 OUT
PB H1
PB H2
HA1 IN
HA2 IN
MON2 IN
MON1 IN
CH1
CH2
Q5005
Q5006
Q5002
Q5003
IC3801(DIGITAL I/F)
DATA IN
(4bit)
ADDRESS
/DATA
(15bit)
CLK18
TP A/TP B
TO DV
TERMINAL
IC2011(PC I/F)
SCK
SDI
SDO
UART I
UART O
TO RS232C

VTR MAIN C.B.A (VEP03E35C)

VTR MAIN C.B.A. (1)

Ref.	Address	Side
Integrated Circuit		
IC601	D-3	Ⓕ
IC602	D-3	Ⓕ
IC603	D-6	Ⓒ
IC604	D-4	Ⓒ
IC605	C-7	Ⓒ
IC606	C-6	Ⓒ
IC2001	B-3	Ⓒ
IC2002	B-5	Ⓕ
IC2003	B-4	Ⓕ
IC2004	B-4	Ⓕ
IC2005	A-3	Ⓒ
IC2006	A-5	Ⓒ
IC2007	A-5	Ⓕ
IC2008	B-5	Ⓕ
IC2009	B-7	Ⓕ
IC2010	A-6	Ⓕ
IC2011	B-2	Ⓒ
IC2012	C-4	Ⓒ
IC2013	B-6	Ⓕ
IC2014	A-5	Ⓕ
IC2015	D-7	Ⓕ
IC3001	C-2	Ⓒ
IC3002	C-4	Ⓒ
IC3003	C-4	Ⓕ
IC3004	C-3	Ⓒ
IC3005	D-5	Ⓕ
IC3006	C-2	Ⓕ
IC3007	D-6	Ⓕ
IC3201	C-5	Ⓒ
IC3202	C-6	Ⓒ
IC3203	A-3	Ⓕ
IC3204	C-3	Ⓕ
IC3205	A-5	Ⓒ
IC3801	C-6	Ⓕ
IC4001	A-6	Ⓒ
IC4201	B-6	Ⓒ
IC4501	B-3	Ⓕ
IC4701	A-1	Ⓒ
IC6501	A-6	Ⓕ
IC6502	A-6	Ⓕ
IC6503	A-6	Ⓕ
IC6505	D-6	Ⓕ
IC6506	D-6	Ⓕ
Transistor		
Q601	C-2	Ⓕ
Q602	C-2	Ⓕ
Q603	C-5	Ⓒ
Q604	C-2	Ⓕ
Q605	C-1	Ⓕ
Q606	B-1	Ⓕ
Q608	B-1	Ⓕ
Q609	D-5	Ⓒ
Q610	C-7	Ⓒ
Q611	C-1	Ⓕ
Q2001	B-5	Ⓕ
Q2002	A-2	Ⓒ
Q2003	A-4	Ⓕ
Q2006	B-4	Ⓕ
Q2008	B-4	Ⓒ
Q3001	B-3	Ⓒ
Q3002	C-3	Ⓒ
Q3201	A-3	Ⓕ
Q3202	B-2	Ⓕ
Q3203	A-3	Ⓕ
Q3204	A-4	Ⓕ
Q4001	A-2	Ⓕ
Q4701	A-1	Ⓕ
Q4702	A-1	Ⓕ
Transistor & Resistor		
QR601	C-7	Ⓒ
QR602	C-3	Ⓕ
QR604	A-1	Ⓕ
QR605	A-1	Ⓕ
QR606	C-1	Ⓕ
QR607	C-1	Ⓕ
QR2001	B-7	Ⓕ
QR2002	A-2	Ⓒ
QR2003	A-3	Ⓒ
QR2004	A-4	Ⓕ
QR2005	A-4	Ⓕ
QR2006	A-1	Ⓒ
QR2007	A-5	Ⓕ
QR2008	B-4	Ⓒ
QR2009	B-5	Ⓕ
QR2010	B-6	Ⓕ
QR2011	B-7	Ⓕ
QR2012	C-4	Ⓒ
QR2013	C-4	Ⓒ
QR3001	B-3	Ⓒ
QR4001	B-2	Ⓕ
QR4002	B-2	Ⓕ
QR4003	B-2	Ⓕ
QR4201	B-6	Ⓒ
QR4703	A-2	Ⓕ
Test Point		
CKC43	B-5	Ⓕ
CKC44	B-2	Ⓒ
CKC45	A-6	Ⓕ
CKC46	A-5	Ⓕ
CKC47	C-7	Ⓕ
CKC48	C-5	Ⓕ
CKC49	C-7	Ⓕ
CKC50	A-5	Ⓕ
CKC51	B-6	Ⓕ
CKD3	C-5	Ⓕ
CKD6	C-5	Ⓕ
CKD7	D-5	Ⓕ
CKD11	C-5	Ⓕ
CKD12	C-6	Ⓕ
CKD13	C-6	Ⓕ
CKD14	C-2	Ⓒ
CKD62	D-6	Ⓕ
CKD70	D-6	Ⓕ
CKD71	D-6	Ⓕ
CKD72	D-6	Ⓕ
CKD78	D-5	Ⓕ
CKD79	D-5	Ⓕ
CKD80	D-5	Ⓕ
CKE2	D-4	Ⓒ
CKE14	C-7	Ⓒ
CKE16	A-5	Ⓒ
CKE20	B-7	Ⓒ
CKE41	B-7	Ⓒ
CKE44	B-6	Ⓒ
CKE54	B-7	Ⓒ
CKE58	B-1	Ⓕ
CKE62	B-7	Ⓒ
CKE64	D-1	Ⓕ
CKE66	D-1	Ⓕ
CKE70	C-7	Ⓒ
CKF11	A-1	Ⓕ
CKF12	A-7	Ⓒ
CKF13	A-1	Ⓕ
CKG1	A-7	Ⓕ
CKG5	A-5	Ⓕ
CL3001	D-6	Ⓕ
CL3002	C-5	Ⓕ
CL3004	C-4	Ⓕ
CL3202	B-3	Ⓕ
CL3203	C-4	Ⓕ
CL3204	C-4	Ⓒ
Diode		
D2001	B-2	Ⓒ
D2002	B-6	Ⓕ
D2003	B-1	Ⓒ
D2004	A-5	Ⓕ
D2005	B-3	Ⓒ
D2006	A-4	Ⓒ
D2007	A-4	Ⓕ
D2010	B-1	Ⓒ
D2011	A-5	Ⓕ
D2012	B-5	Ⓕ
D2013	B-4	Ⓒ
D2015	A-3	Ⓕ
D2016	A-4	Ⓕ
D2017	B-1	Ⓒ
D2018	A-4	Ⓕ
D2020	A-3	Ⓒ
D2021	A-5	Ⓕ
D2022	A-4	Ⓒ
D2023	B-2	Ⓒ
D2024	B-5	Ⓕ
D2025	B-6	Ⓕ
D3201	A-3	Ⓕ
D3202	A-4	Ⓕ
D4001	B-1	Ⓕ
D4002	A-7	Ⓒ
D6501	D-5	Ⓒ
D6502	D-6	Ⓒ

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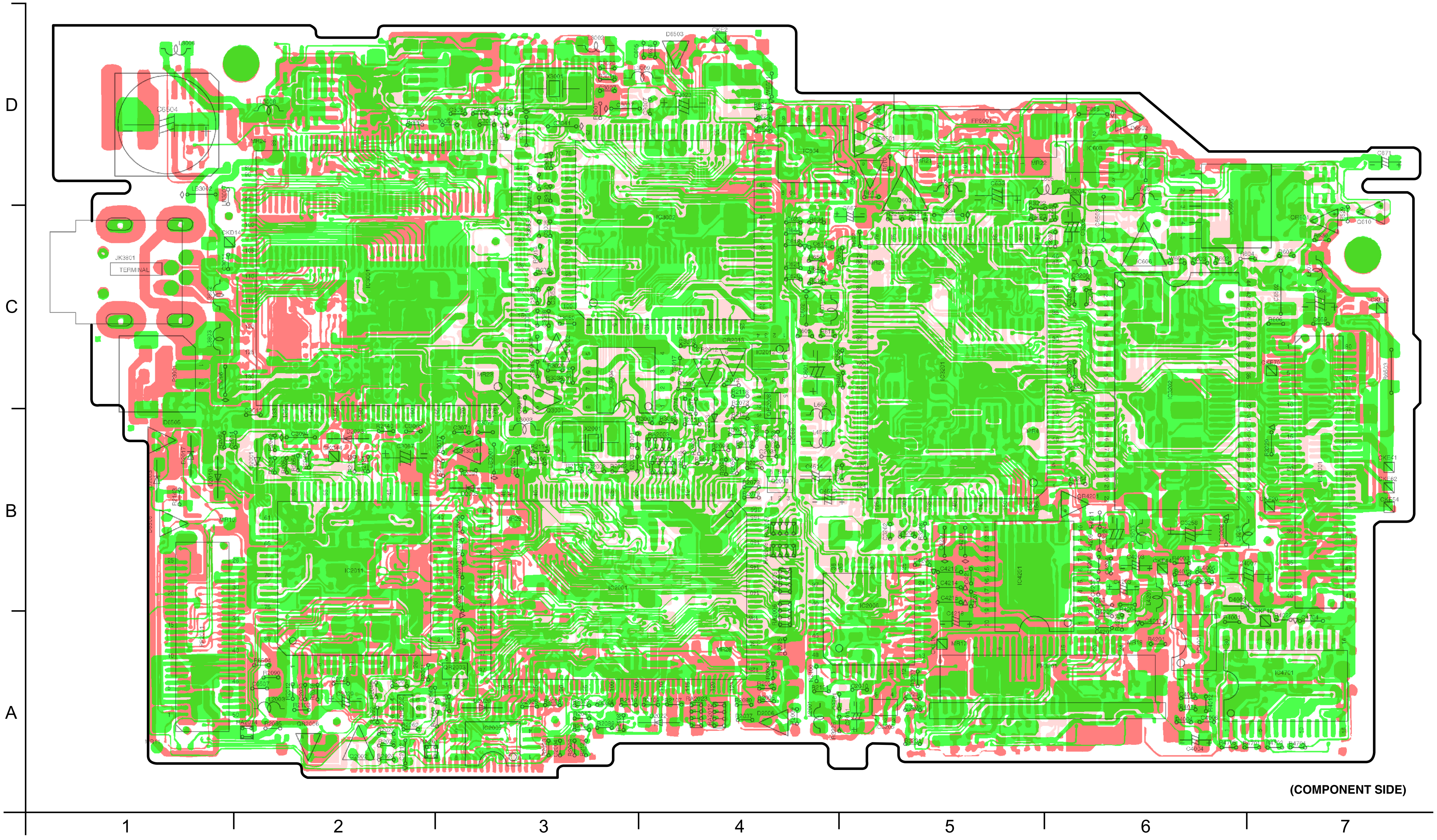

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VTR MAIN C.B.A. (2)

D6503	D-4	©
D6504	D-5	©
D6505	B-1	©
D6506	B-1	©
Connector		
FP3201	A-6	©
FP4001	B-1	Ⓕ
FP6001	D-5	©
FP6002	A-7	Ⓕ
P3001	C-1	©
PP2001	A-1	©
PP3001	A-6	Ⓕ
PP3002	B-2	Ⓕ
PS1001	B-7	©
PS3001	C-2	Ⓕ
PS3002	C-6	Ⓕ
JK3801	C-1	©
Coil		
L601	C-5	©
L602	B-4	©
L603	D-5	©
L605	D-6	©
L606	D-6	©
L607	C-7	©
L2001	A-4	©
L2002	B-5	Ⓕ
L2003	A-2	©
L3002	D-3	©
L3003	B-3	©
L3004	C-5	Ⓕ
L3005	D-4	Ⓕ
L3006	D-1	©
L3008	D-2	©
L3009	D-4	©
L3010	B-2	Ⓕ
L3011	B-2	Ⓕ
L3201	C-6	©
L3202	A-3	Ⓕ
L3203	B-6	©
L3204	B-3	Ⓕ
L3205	B-2	Ⓕ
L3206	B-3	Ⓕ
L3207	B-2	Ⓕ
L3208	B-7	©
L3209	A-4	Ⓕ
L3801	C-5	Ⓕ
L3802	C-1	©
L3803	C-1	©
L3901	A-2	Ⓕ
L4001	B-1	Ⓕ
L4201	B-6	©
L4202	B-2	Ⓕ
L4502	B-5	©
L6501	B-6	Ⓕ
L6502	C-1	Ⓕ
LB3001	B-3	©
LB3002	D-1	©
LB3003	B-4	Ⓕ
LB3004	D-4	Ⓕ
LB3005	D-5	Ⓕ
LB3006	D-5	Ⓕ
LB3007	D-2	©
Crystal Oscillator		
X2001	B-3	©
X2002	C-5	Ⓕ
X2003	A-6	Ⓕ
X3001	D-3	©
X3003	C-4	Ⓕ
Capacitor		
C601	C-4	©
C602	C-4	©
C603	D-4	Ⓕ
C604	D-4	Ⓕ
C605	D-4	©
C606	D-4	Ⓕ
C607	D-4	Ⓕ
C608	D-3	Ⓕ
C609	D-4	Ⓕ
C610	D-3	Ⓕ
C611	D-3	Ⓕ
C612	C-4	©
C613	D-3	Ⓕ
C614	D-3	Ⓕ
C615	C-3	Ⓕ
C616	C-3	Ⓕ
C617	D-3	Ⓕ
C618	C-4	©
C619	D-3	Ⓕ
C620	C-4	©
C621	C-4	©
C622	C-4	©
C623	D-4	Ⓕ
C624	D-4	Ⓕ
C625	D-4	Ⓕ
C626	C-4	Ⓕ
C630	C-3	Ⓕ
C631	D-4	Ⓕ
C632	D-4	Ⓕ
C633	D-5	©
C634	C-5	©
C635	D-3	Ⓕ
C636	D-2	Ⓕ
C637	D-2	Ⓕ
C638	D-3	Ⓕ
C639	D-2	Ⓕ
C640	D-3	Ⓕ
C641	C-3	Ⓕ
C642	D-3	Ⓕ
C643	D-4	Ⓕ
C644	D-2	Ⓕ
C645	D-2	Ⓕ
C646	C-2	Ⓕ
C647	C-3	Ⓕ
C648	C-3	Ⓕ
C649	D-4	Ⓕ
C650	D-2	Ⓕ
C651	C-2	Ⓕ
C652	C-3	Ⓕ
C653	C-3	Ⓕ
C654	C-3	Ⓕ
C655	C-3	Ⓕ
C656	D-3	Ⓕ
C657	C-3	Ⓕ
C658	C-3	Ⓕ
C662	C-4	Ⓕ
C663	C-4	Ⓕ
C664	C-4	Ⓕ
C665	D-6	©
C666	D-6	©
C667	C-5	©
C668	C-7	©
C669	C-7	©
C671	D-7	©
C672	C-1	Ⓕ
C2001	B-4	©
C2002	B-3	©
C2003	B-4	©
C2004	A-3	©
C2005	A-5	Ⓕ
C2006	B-5	Ⓕ
C2007	A-5	Ⓕ
C2008	B-7	Ⓕ
C2009	B-7	Ⓕ
C2010	A-5	©
C2011	A-5	©
C2012	A-2	©
C2013	B-6	Ⓕ
C2014	B-2	©
C2015	B-6	Ⓕ
C2016	A-4	Ⓕ
C2017	A-4	Ⓕ
C2018	A-5	Ⓕ
C2019	B-5	Ⓕ
C2020	B-5	Ⓕ
C2021	B-3	©
C2023	B-4	Ⓕ
C2024	A-3	©
C2025	A-3	©
C2026	B-6	Ⓕ
C2027	B-6	Ⓕ
C2028	A-2	©
C2029	A-2	©
C2030	A-2	©
C2031	B-4	©
C2032	B-4	©
C2033	B-3	©
C2034	B-5	Ⓕ
C2035	A-7	Ⓕ
C2036	A-6	Ⓕ
C2037	B-5	Ⓕ

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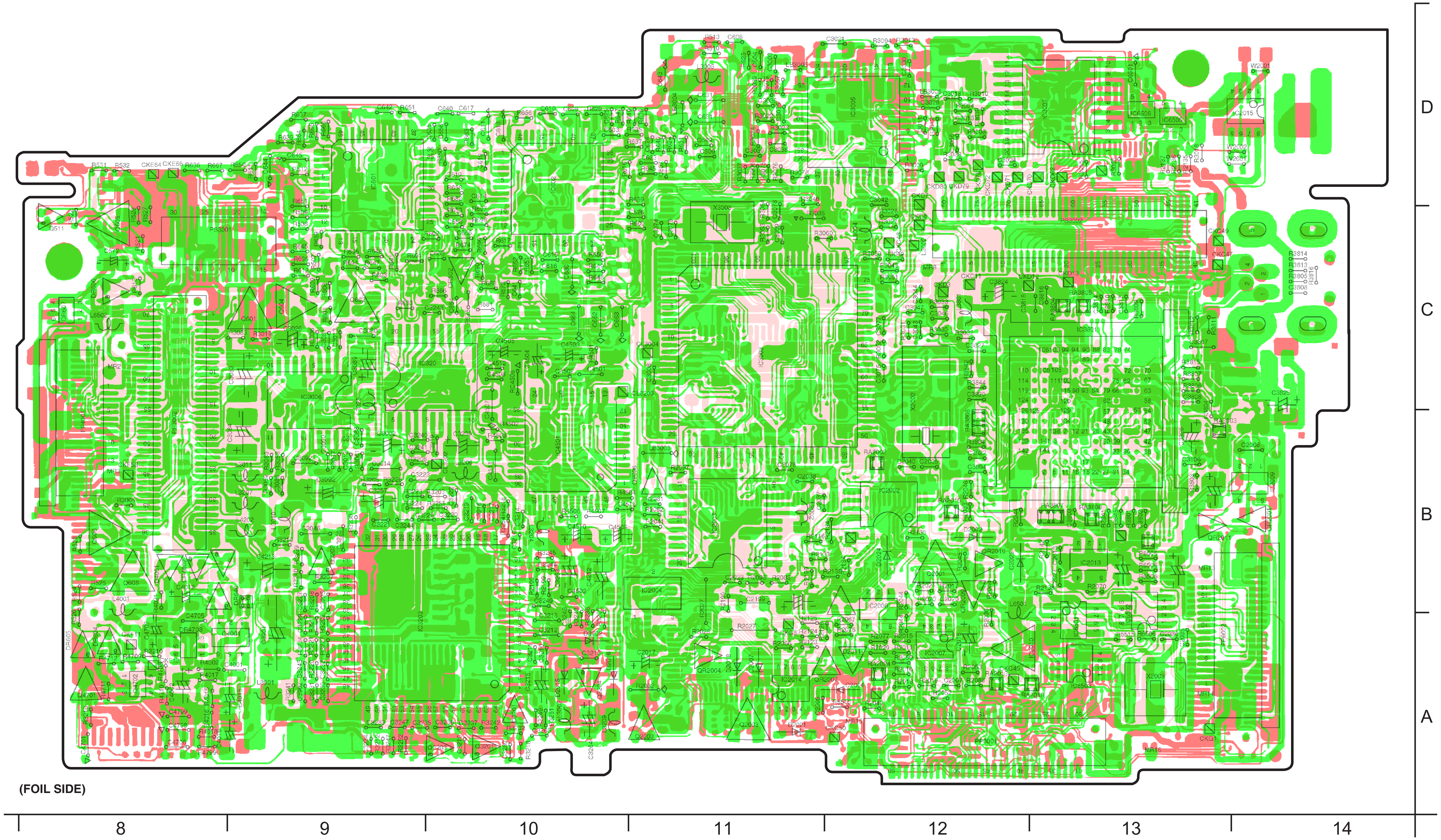

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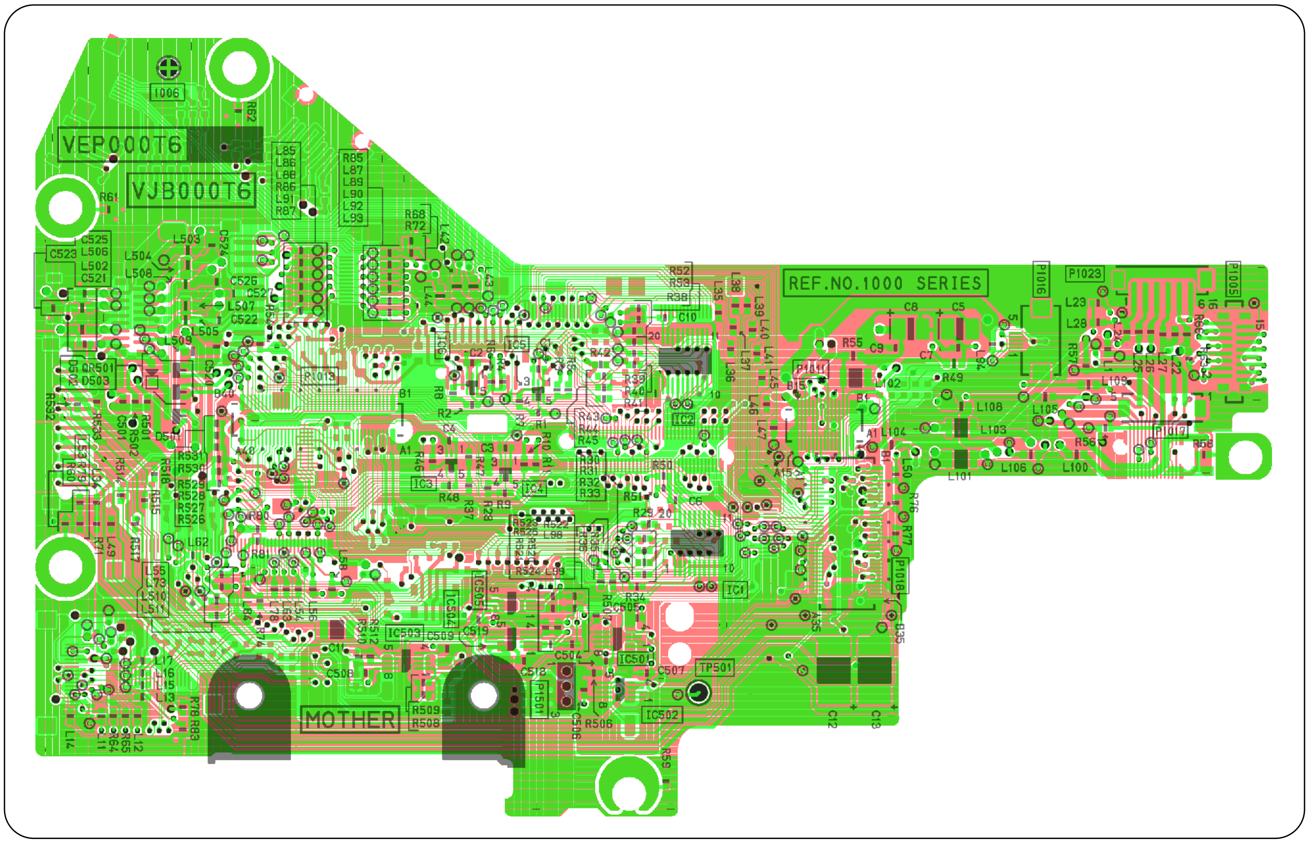
VTR MAIN C.B.A. (3)

C2038	B-5 Ⓕ	C3203	C-6 Ⓒ	C4001	A-2 Ⓕ	R603	C-6 Ⓒ	R2014	B-3 Ⓒ	R2103	A-2 Ⓒ	R3056	D-6 Ⓕ	R3842	C-5 Ⓕ
C2040	B-5 Ⓕ	C3204	C-6 Ⓒ	C4002	A-2 Ⓕ	R604	C-7 Ⓒ	R2015	A-5 Ⓕ	R2104	B-2 Ⓒ	R3057	B-2 Ⓕ	R3844	C-5 Ⓕ
C2041	B-4 Ⓒ	C3205	C-6 Ⓒ	C4003	B-6 Ⓒ	R605	C-4 Ⓒ	R2016	A-5 Ⓕ	R2106	B-3 Ⓒ	R3058	B-2 Ⓕ	R3845	B-6 Ⓕ
C2042	B-4 Ⓕ	C3206	C-6 Ⓒ	C4004	A-6 Ⓒ	R606	C-7 Ⓒ	R2017	B-5 Ⓕ	R2107	A-4 Ⓒ	R3059	B-2 Ⓕ	R4001	A-7 Ⓒ
C2199	B-4 Ⓕ	C3207	C-6 Ⓒ	C4005	B-6 Ⓒ	R607	C-7 Ⓒ	R2018	A-5 Ⓕ	R2108	A-3 Ⓒ	R3060	C-5 Ⓕ	R4002	A-2 Ⓕ
C3002	B-3 Ⓕ	C3208	B-6 Ⓒ	C4006	A-6 Ⓒ	R608	C-2 Ⓕ	R2019	A-5 Ⓕ	R2109	A-4 Ⓒ	R3061	B-2 Ⓕ	R4003	B-6 Ⓒ
C3003	D-4 Ⓕ	C3209	A-5 Ⓒ	C4007	B-7 Ⓒ	R609	C-2 Ⓕ	R2020	B-5 Ⓕ	R2110	A-4 Ⓒ	R3062	B-4 Ⓒ	R4004	A-6 Ⓒ
C3004	D-3 Ⓒ	C3210	A-3 Ⓕ	C4011	A-6 Ⓒ	R610	D-5 Ⓒ	R2021	B-5 Ⓕ	R2113	B-3 Ⓒ	R3075	D-4 Ⓕ	R4011	B-6 Ⓒ
C3005	D-3 Ⓒ	C3211	A-3 Ⓕ	C4012	B-2 Ⓕ	R611	D-5 Ⓒ	R2022	B-5 Ⓕ	R2114	B-3 Ⓒ	R3076	D-5 Ⓕ	R4012	A-6 Ⓒ
C3006	C-3 Ⓒ	C3212	A-3 Ⓕ	C4013	B-6 Ⓒ	R612	C-2 Ⓕ	R2023	A-3 Ⓒ	R2115	B-4 Ⓒ	R3078	D-5 Ⓕ	R4013	B-6 Ⓒ
C3007	D-4 Ⓒ	C3213	A-3 Ⓕ	C4014	A-6 Ⓒ	R613	C-1 Ⓕ	R2024	A-2 Ⓒ	R2116	B-5 Ⓕ	R3079	D-4 Ⓕ	R4014	A-6 Ⓒ
C3008	C-4 Ⓕ	C3214	B-3 Ⓕ	C4015	A-2 Ⓕ	R614	C-5 Ⓒ	R2025	A-2 Ⓒ	R2117	B-3 Ⓒ	R3083	C-2 Ⓕ	R4015	A-2 Ⓕ
C3009	C-4 Ⓕ	C3215	A-3 Ⓕ	C4016	A-2 Ⓕ	R615	C-4 Ⓒ	R2026	A-2 Ⓒ	R2118	A-3 Ⓒ	R3085	B-2 Ⓕ	R4016	A-2 Ⓕ
C3010	B-2 Ⓒ	C3216	B-3 Ⓕ	C4201	A-6 Ⓒ	R616	D-4 Ⓕ	R2027	A-4 Ⓕ	R2119	C-4 Ⓒ	R3086	C-4 Ⓒ	R4017	A-2 Ⓕ
C3011	C-2 Ⓒ	C3217	B-3 Ⓕ	C4202	B-6 Ⓒ	R617	C-3 Ⓕ	R2028	A-4 Ⓕ	R2121	A-5 Ⓕ	R3090	D-3 Ⓒ	R4018	A-2 Ⓕ
C3012	B-2 Ⓕ	C3218	B-3 Ⓕ	C4203	B-6 Ⓒ	R619	D-4 Ⓕ	R2029	A-5 Ⓕ	R2122	B-5 Ⓕ	R3091	D-3 Ⓒ	R4021	B-1 Ⓕ
C3013	C-2 Ⓕ	C3219	B-3 Ⓕ	C4204	B-6 Ⓒ	R621	D-4 Ⓒ	R2031	B-4 Ⓒ	R2123	A-5 Ⓕ	R3094	D-5 Ⓕ	R4022	A-7 Ⓒ
C3015	D-5 Ⓕ	C3220	B-3 Ⓕ	C4205	B-6 Ⓒ	R622	D-4 Ⓕ	R2033	B-5 Ⓕ	R2124	A-5 Ⓕ	R3203	B-3 Ⓕ	R4201	A-6 Ⓒ
C3016	C-3 Ⓒ	C3221	B-3 Ⓕ	C4206	B-6 Ⓒ	R623	D-4 Ⓒ	R2034	A-4 Ⓒ	R2125	A-5 Ⓕ	R3204	B-5 Ⓒ	R4202	A-6 Ⓒ
C3017	C-4 Ⓒ	C3222	B-3 Ⓕ	C4207	B-5 Ⓒ	R624	D-4 Ⓕ	R2035	B-6 Ⓕ	R2126	A-5 Ⓕ	R3205	B-2 Ⓕ	R4203	A-6 Ⓒ
C3018	D-5 Ⓕ	C3223	B-3 Ⓕ	C4208	B-5 Ⓒ	R625	D-4 Ⓕ	R2036	A-6 Ⓕ	R2127	A-3 Ⓒ	R3206	B-3 Ⓕ	R4204	A-6 Ⓒ
C3019	B-3 Ⓒ	C3224	B-6 Ⓒ	C4209	B-5 Ⓒ	R626	D-4 Ⓒ	R2037	A-4 Ⓒ	R2128	A-3 Ⓒ	R3207	B-2 Ⓕ	R4205	A-6 Ⓒ
C3020	D-3 Ⓒ	C3225	B-2 Ⓕ	C4210	B-5 Ⓒ	R629	D-4 Ⓕ	R2038	B-6 Ⓕ	R2129	B-4 Ⓒ	R3208	B-2 Ⓕ	R4211	B-6 Ⓒ
C3021	D-5 Ⓕ	C3226	B-3 Ⓕ	C4211	B-5 Ⓒ	R631	D-4 Ⓕ	R2039	B-6 Ⓕ	R2130	B-5 Ⓕ	R3209	A-2 Ⓕ	R4501	C-4 Ⓕ
C3022	D-5 Ⓕ	C3227	B-2 Ⓕ	C4212	B-4 Ⓕ	R634	C-4 Ⓒ	R2040	B-2 Ⓒ	R2133	B-5 Ⓕ	R3210	A-2 Ⓕ	R4502	B-3 Ⓕ
C3023	D-4 Ⓒ	C3228	B-2 Ⓕ	C4213	B-2 Ⓕ	R635	D-4 Ⓕ	R2041	B-4 Ⓕ	R2134	B-5 Ⓕ	R3211	A-2 Ⓕ	R4503	B-3 Ⓕ
C3024	D-6 Ⓕ	C3229	A-2 Ⓕ	C4214	B-5 Ⓒ	R636	D-4 Ⓕ	R2042	B-2 Ⓒ	R2135	D-7 Ⓕ	R3212	A-3 Ⓕ	R4504	B-4 Ⓕ
C3026	C-2 Ⓕ	C3230	A-2 Ⓕ	C4215	B-5 Ⓒ	R637	D-4 Ⓕ	R2043	A-3 Ⓒ	R2136	D-6 Ⓕ	R3213	C-5 Ⓒ	R4506	B-3 Ⓕ
C3027	D-3 Ⓒ	C3231	A-2 Ⓕ	C4218	A-5 Ⓒ	R638	C-3 Ⓒ	R2044	B-6 Ⓕ	R2137	D-6 Ⓕ	R3214	C-5 Ⓒ	R4507	B-4 Ⓕ
C3028	D-5 Ⓕ	C3232	A-2 Ⓕ	C4219	B-5 Ⓒ	R639	D-4 Ⓕ	R2045	B-6 Ⓕ	R2138	B-5 Ⓕ	R3215	A-4 Ⓕ	R4701	A-7 Ⓒ
C3030	D-5 Ⓕ	C3233	A-3 Ⓕ	C4501	C-4 Ⓕ	R640	C-5 Ⓒ	R2046	A-2 Ⓒ	R2139	B-2 Ⓒ	R3217	A-3 Ⓕ	R4702	A-7 Ⓒ
C3035	D-5 Ⓕ	C3234	A-2 Ⓕ	C4502	C-3 Ⓕ	R642	C-4 Ⓒ	R2047	B-4 Ⓒ	R2140	B-2 Ⓒ	R3218	A-3 Ⓕ	R4704	A-7 Ⓒ
C3036	D-4 Ⓕ	C3235	A-3 Ⓕ	C4503	C-3 Ⓕ	R644	C-4 Ⓒ	R2048	B-5 Ⓕ	R2141	B-5 Ⓕ	R3219	B-3 Ⓕ	R4705	A-7 Ⓒ
C3037	D-4 Ⓒ	C3236	A-3 Ⓕ	C4504	C-3 Ⓕ	R645	D-4 Ⓕ	R2049	A-5 Ⓕ	R2142	B-6 Ⓕ	R3220	A-2 Ⓕ	R4707	A-1 Ⓕ
C3038	D-5 Ⓕ	C3237	A-3 Ⓕ	C4505	C-3 Ⓕ	R646	D-4 Ⓕ	R2050	B-4 Ⓒ	R2143	B-1 Ⓒ	R3221	A-2 Ⓕ	R4708	A-1 Ⓕ
C3039	D-4 Ⓕ	C3238	A-5 Ⓒ	C4506	C-3 Ⓕ	R647	D-4 Ⓕ	R2052	A-5 Ⓕ	R2199	B-4 Ⓕ	R3222	C-6 Ⓒ	R4709	A-1 Ⓕ
C3040	D-3 Ⓒ	C3239	B-3 Ⓕ	C4507	C-3 Ⓕ	R648	C-4 Ⓕ	R2053	A-5 Ⓕ	R3001	D-3 Ⓒ	R3223	C-5 Ⓒ	R4710	A-1 Ⓕ
C3041	D-3 Ⓒ	C3240	B-3 Ⓕ	C4508	C-3 Ⓕ	R649	C-4 Ⓕ	R2054	B-2 Ⓒ	R3002	D-2 Ⓒ	R3224	B-3 Ⓕ	R4711	A-1 Ⓕ
C3042	D-5 Ⓕ	C3241	B-3 Ⓕ	C4509	B-4 Ⓕ	R650	C-4 Ⓕ	R2055	B-3 Ⓒ	R3003	B-4 Ⓒ	R3225	A-5 Ⓒ	R4712	A-1 Ⓕ
C3043	C-5 Ⓕ	C3242	B-3 Ⓕ	C4510	B-4 Ⓕ	R651	C-3 Ⓕ	R2056	B-4 Ⓒ	R3004	D-5 Ⓕ	R3226	B-3 Ⓕ	R4798	A-1 Ⓕ
C3044	C-5 Ⓕ	C3243	C-3 Ⓕ	C4511	B-3 Ⓕ	R652	C-3 Ⓕ	R2057	B-2 Ⓒ	R3005	B-1 Ⓕ	R3227	A-2 Ⓕ	R4799	A-2 Ⓕ
C3045	C-3 Ⓒ	C3244	B-3 Ⓕ	C4512	C-3 Ⓕ	R653	C-3 Ⓕ	R2058	A-2 Ⓒ	R3006	D-4 Ⓕ	R3228	C-6 Ⓒ	R6503	C-7 Ⓒ
C3046	C-5 Ⓕ	C3245	A-2 Ⓕ	C4513	B-5 Ⓒ	R656	D-3 Ⓕ	R2059	A-5 Ⓕ	R3008	D-5 Ⓕ	R3229	B-7 Ⓒ	R6504	A-2 Ⓒ
C3047	C-5 Ⓕ	C3246	B-2 Ⓕ	C4514	B-4 Ⓒ	R657	C-4 Ⓒ	R2060	A-2 Ⓒ	R3009	D-5 Ⓕ	R3230	B-2 Ⓕ	R6505	B-6 Ⓕ
C3048	C-3 Ⓒ	C3247	A-3 Ⓕ	C4515	B-4 Ⓕ	R658	D-3 Ⓕ	R2061	A-3 Ⓒ	R3010	D-5 Ⓕ	R3231	A-5 Ⓒ	R6506	A-6 Ⓕ
C3050	C-3 Ⓒ	C3248	A-3 Ⓕ	C4701	A-1 Ⓕ	R659	C-2 Ⓕ	R2062	A-2 Ⓒ	R3011	D-5 Ⓕ	R3232	A-3 Ⓕ	R6510	A-5 Ⓕ
C3051	C-3 Ⓒ	C3249	B-3 Ⓕ	C4702	A-1 Ⓕ	R661	D-3 Ⓕ	R2063	A-3 Ⓒ	R3012	D-5 Ⓕ	R3233	B-3 Ⓕ	R6515	A-6 Ⓕ
C3053	C-3 Ⓒ	C3250	B-5 Ⓕ	C4704	A-7 Ⓒ	R663	D-3 Ⓕ	R2064	A-3 Ⓒ	R3013	D-5 Ⓕ	R3234	A-2 Ⓕ	**Resistor Array**	
C3054	C-3 Ⓒ	C3251	B-3 Ⓕ	C4705	A-2 Ⓕ	R664	D-2 Ⓕ	R2065	A-3 Ⓒ	R3014	C-3 Ⓒ	R3235	A-4 Ⓕ		
C3055	C-3 Ⓒ	C3252	B-3 Ⓕ	C4706	A-2 Ⓕ	R665	D-2 Ⓕ	R2066	A-5 Ⓕ	R3016	D-3 Ⓒ	R3236	A-4 Ⓕ	RA2001	B-4 Ⓒ
C3056	D-5 Ⓕ	C3253	B-3 Ⓕ	C4798	A-2 Ⓕ	R666	D-2 Ⓕ	R2067	A-5 Ⓕ	R3017	B-3 Ⓒ	R3237	A-5 Ⓒ	RA2002	B-5 Ⓕ
C3057	D-5 Ⓕ	C3254	B-6 Ⓒ	C4799	A-2 Ⓕ	R667	D-2 Ⓕ	R2068	B-4 Ⓒ	R3018	D-7 Ⓕ	R3238	B-2 Ⓕ	RA2003	B-4 Ⓒ
C3058	D-3 Ⓒ	C3255	C-5 Ⓒ	C6501	D-6 Ⓕ	R673	C-3 Ⓕ	R2069	B-2 Ⓒ	R3019	C-2 Ⓕ	R3239	B-2 Ⓕ	RA2005	B-4 Ⓒ
C3060	D-3 Ⓒ	C3256	B-5 Ⓒ	C6502	C-7 Ⓒ	R674	C-3 Ⓕ	R2070	B-6 Ⓕ	R3020	C-3 Ⓒ	R3240	B-2 Ⓕ	RA2006	A-4 Ⓒ
C3061	D-3 Ⓒ	C3257	B-3 Ⓕ	C6503	C-6 Ⓒ	R675	C-3 Ⓕ	R2072	C-4 Ⓒ	R3022	D-4 Ⓕ	R3241	A-2 Ⓕ	RA2007	B-4 Ⓒ
C3065	B-2 Ⓒ	C3258	B-6 Ⓒ	C6504	A-1 Ⓒ	R680	D-3 Ⓕ	R2073	B-4 Ⓒ	R3023	D-5 Ⓕ	R3242	A-3 Ⓕ	RA2008	B-4 Ⓒ
C3066	C-3 Ⓒ	C3259	A-3 Ⓕ	C6507	A-2 Ⓒ	R681	C-3 Ⓕ	R2074	B-4 Ⓒ	R3024	D-4 Ⓕ	R3243	A-4 Ⓕ	RA2011	A-3 Ⓒ
C3067	B-2 Ⓒ	C3261	A-5 Ⓒ	**Resistor**		R682	D-3 Ⓕ	R2076	A-5 Ⓕ	R3027	C-5 Ⓕ	R3244	B-3 Ⓕ	RA2012	A-4 Ⓒ
C3071	B-3 Ⓒ	C3262	B-5 Ⓒ			R683	C-3 Ⓕ	R2077	A-5 Ⓕ	R3028	C-5 Ⓕ	R3245	B-3 Ⓕ	RA2013	A-6 Ⓕ
C3072	B-3 Ⓒ	C3264	A-4 Ⓕ	R507	C-2 Ⓕ	R685	C-3 Ⓕ	R2078	B-4 Ⓒ	R3030	C-5 Ⓕ	R3247	A-3 Ⓕ	RA2014	A-2 Ⓒ
C3073	C-4 Ⓒ	C3265	A-3 Ⓕ	R508	C-2 Ⓕ	R690	C-3 Ⓕ	R2079	B-4 Ⓒ	R3031	C-5 Ⓕ	R3248	B-5 Ⓒ	RA2016	B-5 Ⓕ
C3074	C-4 Ⓕ	C3802	B-6 Ⓕ	R509	C-2 Ⓕ	R691	C-3 Ⓕ	R2080	A-4 Ⓒ	R3032	C-5 Ⓕ	R3249	A-3 Ⓕ	RA2018	A-6 Ⓕ
C3075	C-5 Ⓕ	C3803	B-6 Ⓕ	R510	D-4 Ⓕ	R692	C-5 Ⓒ	R2081	B-4 Ⓕ	R3033	C-5 Ⓕ	R3251	A-3 Ⓕ	RA2023	A-4 Ⓒ
C3076	B-5 Ⓕ	C3804	B-5 Ⓕ	R511	D-2 Ⓕ	R693	C-3 Ⓕ	R2082	B-4 Ⓕ	R3034	C-3 Ⓒ	R3252	A-3 Ⓕ	RA2024	A-5 Ⓕ
C3077	C-5 Ⓕ	C3806	B-7 Ⓕ	R512	D-2 Ⓕ	R694	C-2 Ⓕ	R2083	B-5 Ⓕ	R3035	C-5 Ⓕ	R3254	B-3 Ⓕ	RA3803	B-7 Ⓕ
C3078	C-4 Ⓕ	C3807	C-7 Ⓕ	R513	D-4 Ⓕ	R695	C-2 Ⓕ	R2085	A-2 Ⓒ	R3036	C-2 Ⓕ	R3255	B-3 Ⓕ	RA3804	C-6 Ⓕ
C3079	C-4 Ⓕ	C3808	C-7 Ⓕ	R521	C-1 Ⓕ	R696	C-2 Ⓕ	R2087	B-4 Ⓒ	R3037	D-4 Ⓕ	R3801	B-6 Ⓕ	RA3805	C-6 Ⓕ
C3080	C-2 Ⓕ	C3809	C-7 Ⓕ	R522	C-1 Ⓕ	R697	C-3 Ⓕ	R2088	A-5 Ⓕ	R3038	D-5 Ⓕ	R3803	B-7 Ⓕ	RA3806	B-5 Ⓕ
C3081	C-2 Ⓕ	C3813	C-6 Ⓕ	R523	B-1 Ⓕ	R698	C-3 Ⓕ	R2089	A-3 Ⓒ	R3039	D-4 Ⓕ	R3804	C-7 Ⓕ	RA3807	B-6 Ⓕ
C3083	C-2 Ⓕ	C3814	C-6 Ⓕ	R524	B-1 Ⓕ	R699	C-3 Ⓕ	R2090	A-2 Ⓒ	R3041	D-3 Ⓒ	R3805	C-7 Ⓕ	RA3808	B-6 Ⓕ
C3084	B-2 Ⓕ	C3816	C-6 Ⓕ	R525	B-1 Ⓕ	R2002	B-4 Ⓒ	R2091	B-3 Ⓒ	R3042	D-3 Ⓒ	R3806	C-7 Ⓕ	RA3809	B-6 Ⓕ
C3086	B-2 Ⓕ	C3817	C-6 Ⓕ	R526	A-1 Ⓕ	R2003	B-4 Ⓕ	R2092	A-2 Ⓒ	R3044	D-3 Ⓒ	R3807	C-7 Ⓕ	RA4001	B-2 Ⓕ
C3088	B-2 Ⓕ	C3818	C-6 Ⓕ	R527	C-1 Ⓕ	R2004	B-4 Ⓒ	R2093	A-4 Ⓒ	R3046	D-5 Ⓕ	R3809	C-6 Ⓕ		
C3089	C-2 Ⓕ	C3820	C-5 Ⓕ	R528	C-1 Ⓕ	R2005	A-4 Ⓒ	R2095	A-4 Ⓒ	R3048	C-5 Ⓕ	R3811	C-7 Ⓕ		
C3090	B-2 Ⓕ	C3822	B-5 Ⓕ	R529	C-7 Ⓒ	R2006	A-3 Ⓒ	R2096	B-4 Ⓕ	R3049	C-5 Ⓕ	R3812	C-7 Ⓕ		
C3091	B-2 Ⓕ	C3824	C-6 Ⓕ	R530	C-7 Ⓒ	R2007	A-3 Ⓒ	R2097	B-4 Ⓕ	R3050	C-5 Ⓕ	R3813	C-7 Ⓕ		
C3092	B-2 Ⓕ	C3825	C-7 Ⓕ	R531	D-1 Ⓕ	R2008	A-3 Ⓒ	R2098	B-4 Ⓒ	R3051	C-5 Ⓕ	R3814	C-7 Ⓕ		
C3094	B-2 Ⓒ	C3826	B-7 Ⓕ	R532	D-1 Ⓕ	R2009	A-4 Ⓒ	R2099	B-4 Ⓒ	R3052	C-5 Ⓕ	R3815	C-7 Ⓕ		
C3096	C-2 Ⓒ	C3827	C-5 Ⓕ	R600	C-4 Ⓕ	R2011	A-5 Ⓕ	R2100	A-4 Ⓒ	R3053	C-4 Ⓕ	R3816	C-7 Ⓕ		
C3201	C-6 Ⓒ	C3901	A-2 Ⓕ	R601	C-2 Ⓕ	R2012	B-4 Ⓒ	R2101	A-4 Ⓒ	R3054	C-4 Ⓕ	R3834	B-5 Ⓕ		
C3202	C-6 Ⓒ	C3902	A-2 Ⓕ	R602	C-6 Ⓒ	R2013	B-3 Ⓒ	R2102	A-2 Ⓒ	R3055	D-6 Ⓕ	R3841	B-6 Ⓕ		

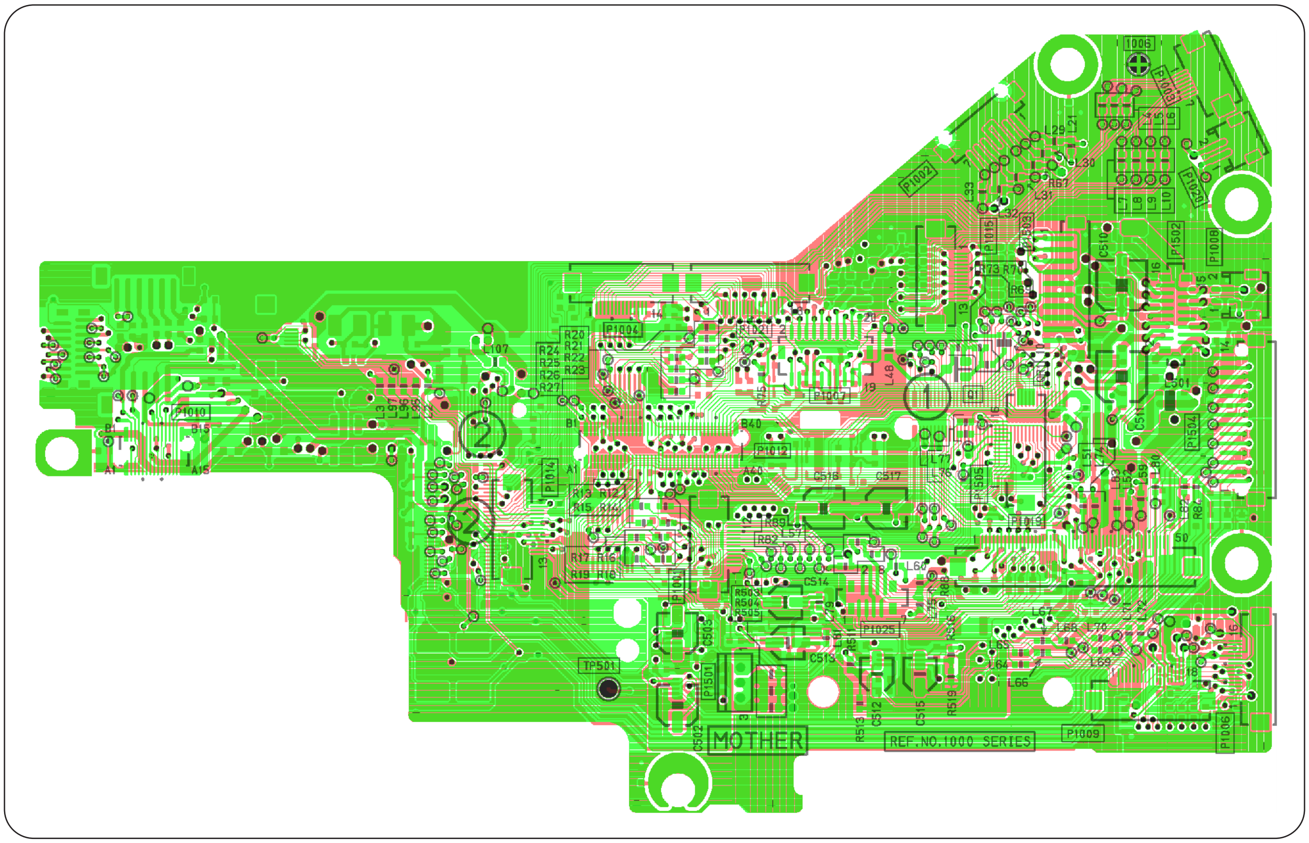
ADDRESS INFORMATION Ⓒ... COMPONENT SIDE Ⓕ... FOIL SIDE

MOTHER C.B.A (VEP000T6A)


VEP000T6
VJB000T6
REF.NO.1000 SERIES
MOTHER

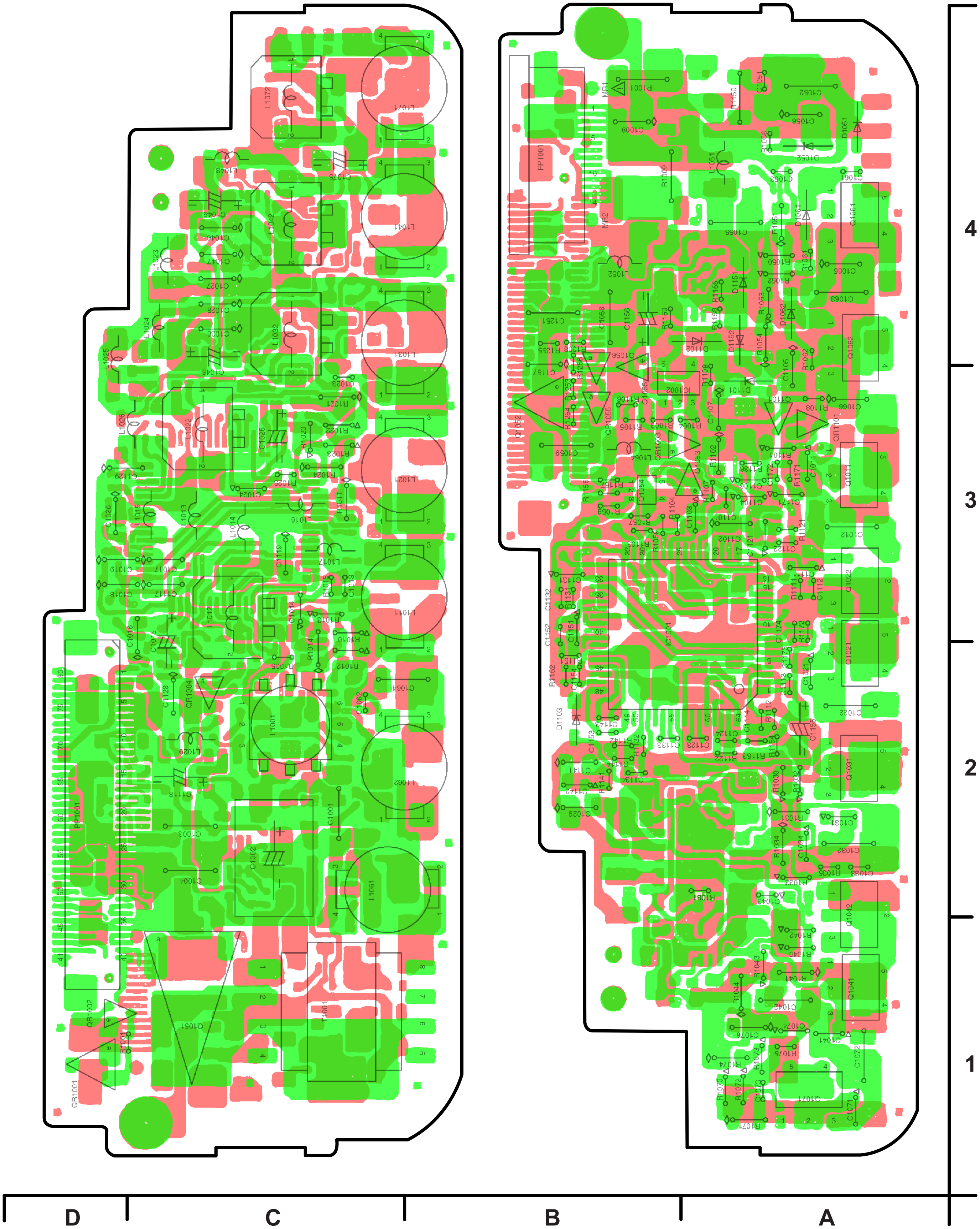
(FOIL SIDE)

MOTHER C.B.A (VEP000T6A)


MOTHER
REF.NO.1000 SERIES
TP501
P1501
P1009
P1006
P1008
P1502
P1504
P1505
P1007
P1012
P1004
P1014
P1025
P1002
P1010
C502
C503
C512
C513
C514
C515
C516
C517
L107

(COMPONENT SIDE)

POWER C.B.A (VEP01801C)

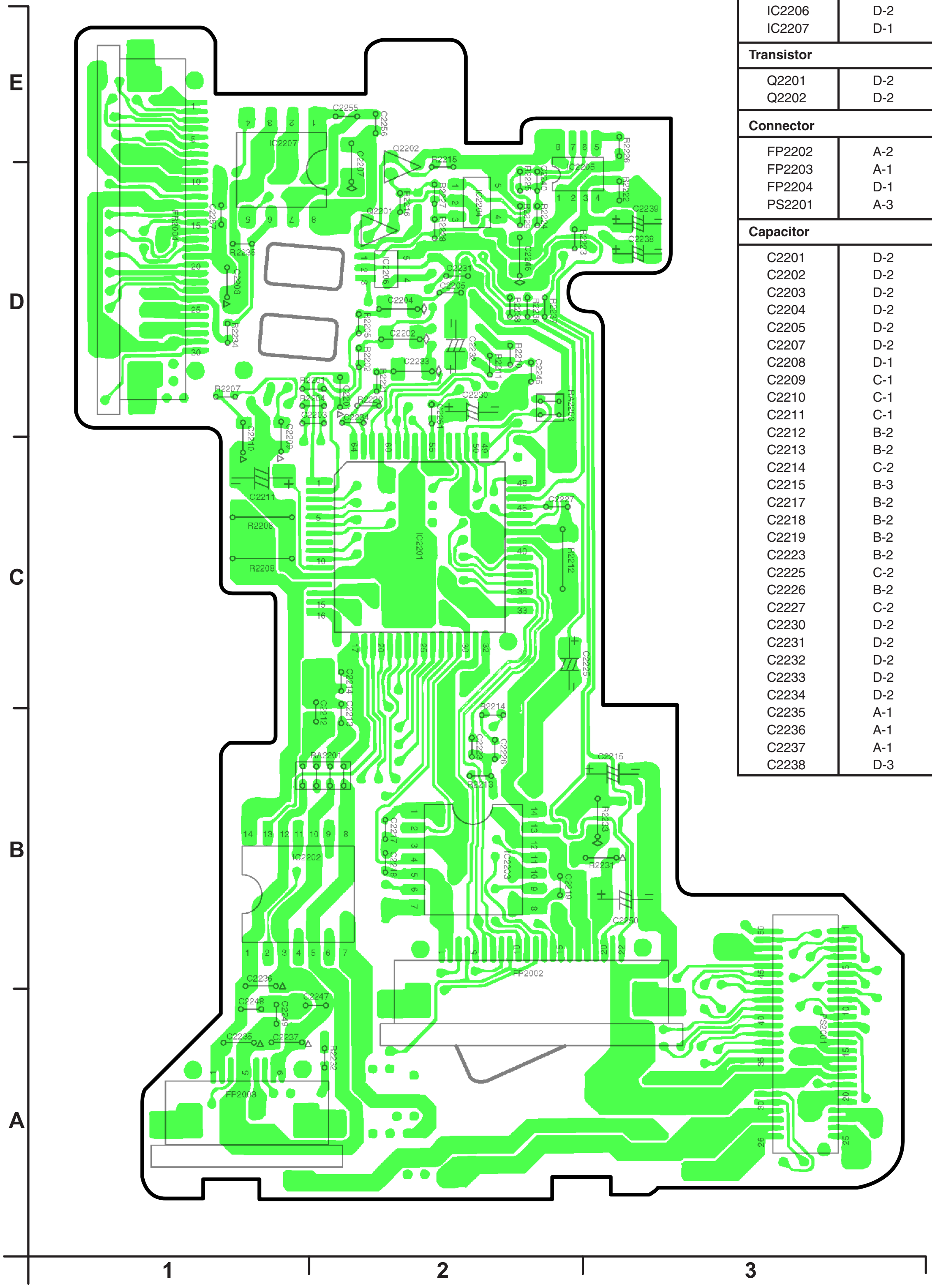


4
3
2
1
D
C
B
A
L1071
L1041
L1031
L1021
L1011
L1062
L1061
L1001
T1001
Q1051
PP1001
FP1001
IC1001

(COMPONENT SIDE)

(FOIL SIDE)

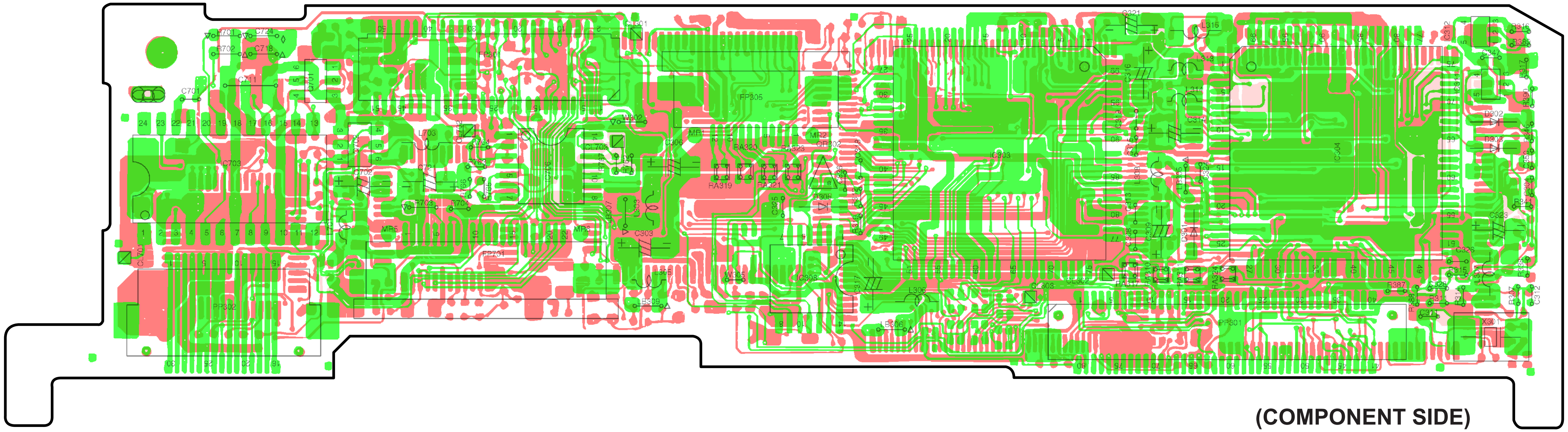
DRIVE C.B.A (VEP02561A)



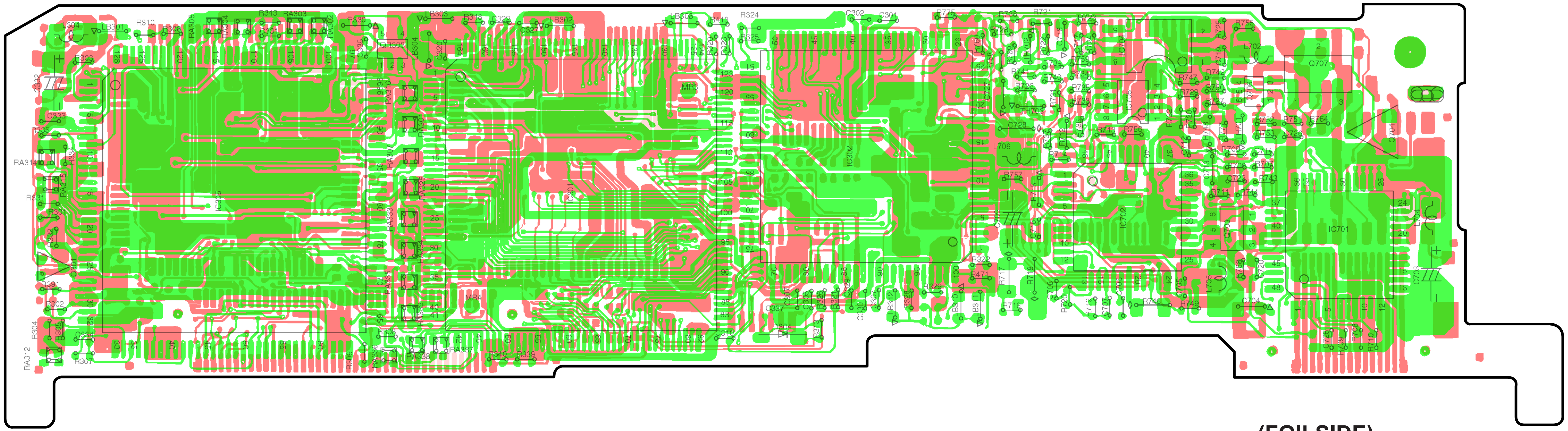
E
D
C
B
A
1
2
3
IC2201
IC2202
IC2203
IC2204
IC2205
IC2206
IC2207
Q2201
Q2202
FP2202
FP2203
FP2204
PS2201
RA2201
RA2203

DRIVE C.B.A.	
Integrated Circuit	
IC2201	C-2
IC2202	B-1
IC2203	B-2
IC2204	D-2
IC2205	D-2
IC2206	D-2
IC2207	D-1
Transistor	
Q2201	D-2
Q2202	D-2
Connector	
FP2202	A-2
FP2203	A-1
FP2204	D-1
PS2201	A-3
Capacitor	
C2201	D-2
C2202	D-2
C2203	D-2
C2204	D-2
C2205	D-2
C2207	D-2
C2208	D-1
C2209	C-1
C2210	C-1
C2211	C-1
C2212	B-2
C2213	B-2
C2214	C-2
C2215	B-3
C2217	B-2
C2218	B-2
C2219	B-2
C2223	B-2
C2225	C-2
C2226	B-2
C2227	C-2
C2230	D-2
C2231	D-2
C2232	D-2
C2233	D-2
C2234	D-2
C2235	A-1
C2236	A-1
C2237	A-1
C2238	D-3
C2239	D-3
C2240	D-2
C2245	D-2
C2246	D-2
C2247	A-2
C2248	A-1
C2249	A-1
C2250	B-3
C2251	D-2
C2255	E-2
C2256	E-2
C2257	D-1
Resistor	
R2201	D-2
R2202	D-2
R2204	D-2
R2205	D-2
R2207	D-1
R2208	C-1
R2209	C-1
R2210	D-2
R2211	D-2
R2212	C-2
R2213	B-2
R2214	B-2
R2215	D-2
R2216	D-2
R2220	D-2
R2221	D-2
R2222	D-3
R2223	D-2
R2224	D-2
R2225	D-2
R2226	E-3
R2227	D-2
R2228	D-2
R2229	D-2
R2231	B-3
R2232	A-2
R2233	B-3
R2234	D-1
R2235	D-1
R2236	D-2
R2237	D-2
R2238	D-2
Resistor Array	
RA2201	B-2
RA2203	D-2

CAMERA MAIN C.B.A (VEP23443A)

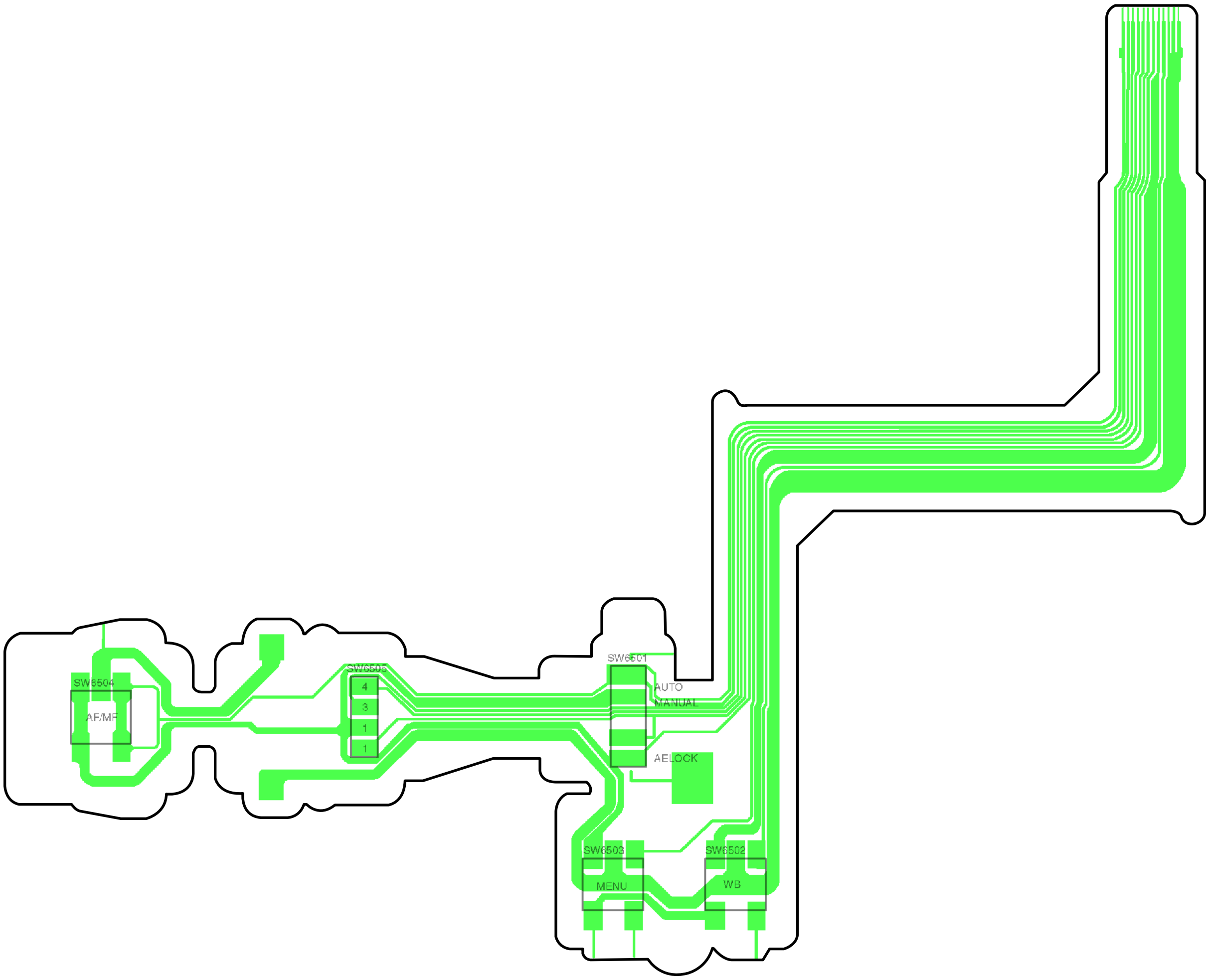


(COMPONENT SIDE)

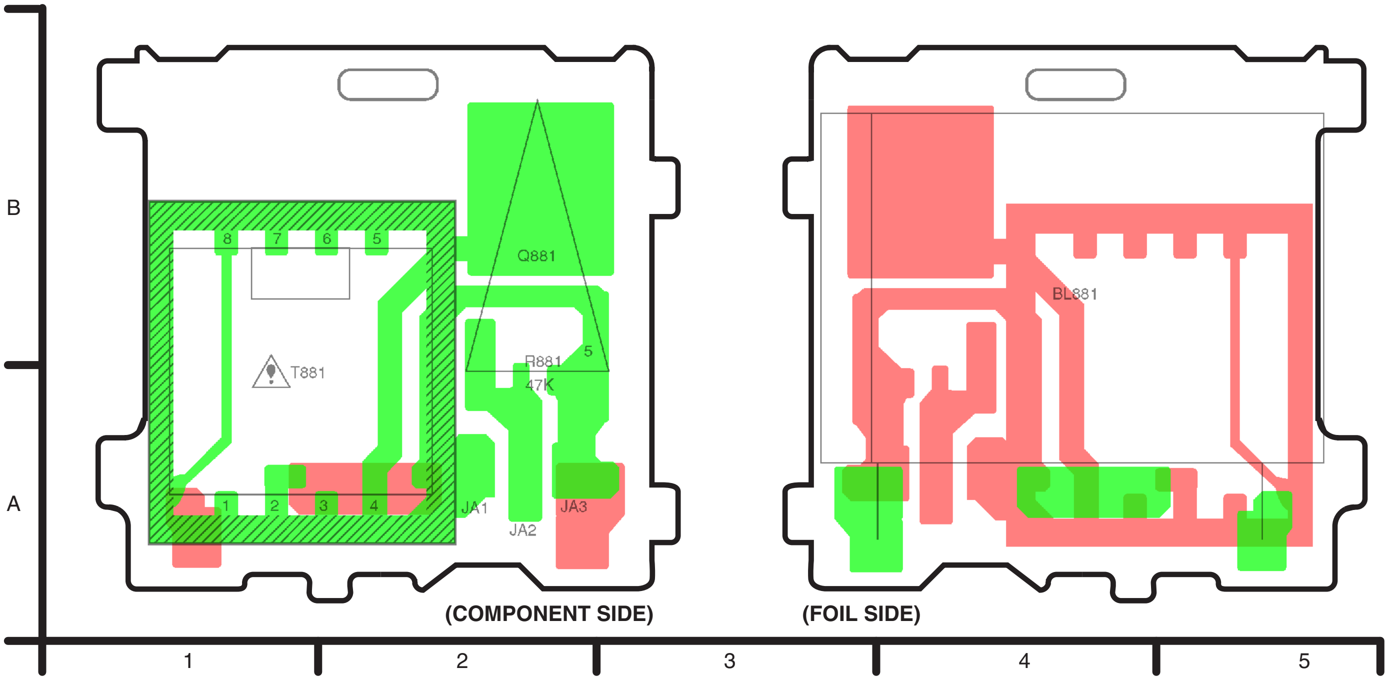


(FOILSIDE)

CAMERA OPERATION C.B.A (VEP20737B)

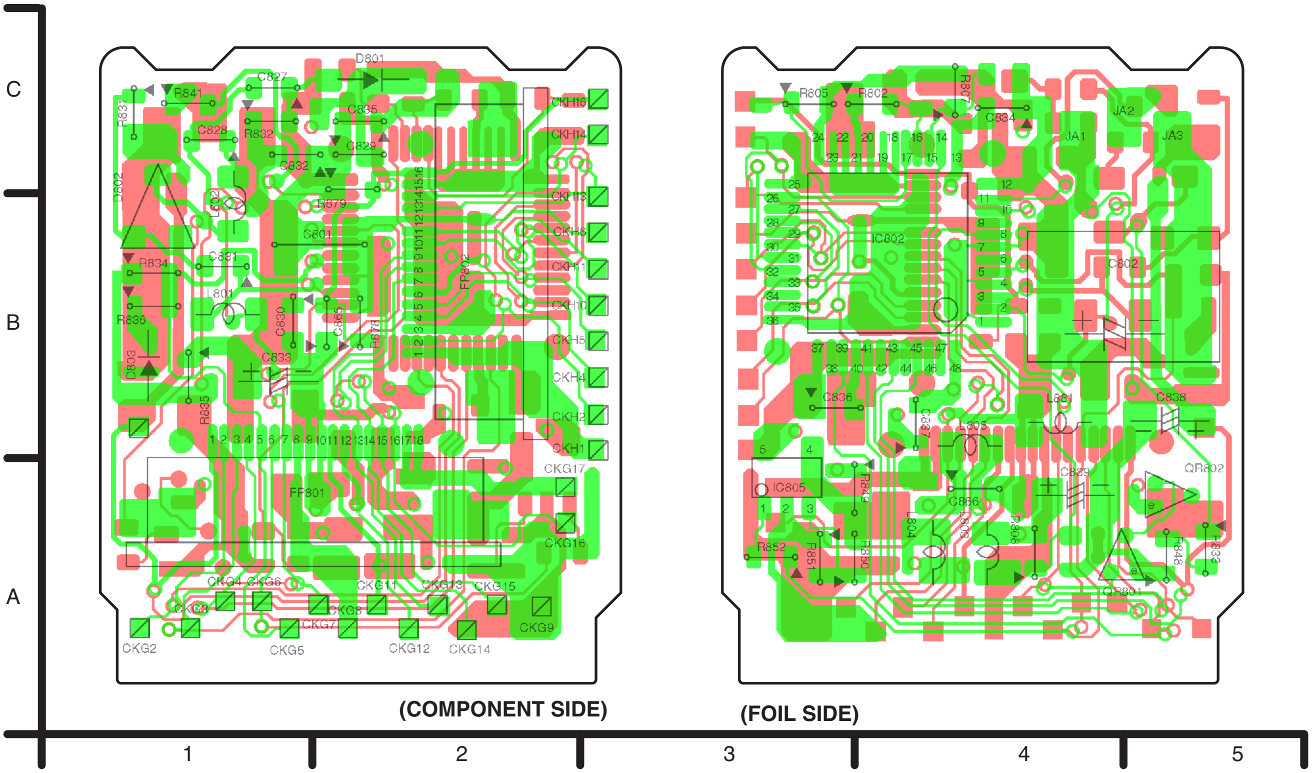

SW6504
AF/MF
SW6505
4
3
1
1
SW6501
AUTO
MANUAL
AELOCK
SW6503
MENU
SW6502
WB

EVF (A) C.B.A (VEP28240D)


B
A
8
7
6
5
T881
Q881
R881
47K
5
1
2
3
4
JA1
JA2
JA3
BL881
1
2
3
4
5

(COMPONENT SIDE)
(FOIL SIDE)

EVF (B) C.B.A (VEP28244B)


C
B
A
D801
C827
R841
R837
C828
R832
C835
C829
C832
D802
L802
R879
C801
R834
C831
L801
R836
C830
C865
R874
FP802
D803
C833
R835
FP801
CKH16
CKH14
CKH13
CKH8
CKH11
CKH10
CKH5
CKH4
CKH2
CKH1
CKG17
CKG16
CKG4
CKG6
CKG3
CKG8
CKG7
CKG11
CKG13
CKG15
CKG9
CKG2
CKG5
CKG12
CKG14
R805
R802
R807
C834
JA2
JA1
JA3
IC802
C802
C836
C837
L805
L801
C838
IC805
R849
C866
C829
QR802
R852
R851
R850
L804
R803
R808
R848
R833
QR801
1
2
3
4
5

(COMPONENT SIDE)
(FOIL SIDE)

HEAD AMP C.B.A (VEP05352A)

HEAD/REC AMP C.B.A.

Integrated Circuit	
IC5001	B-1

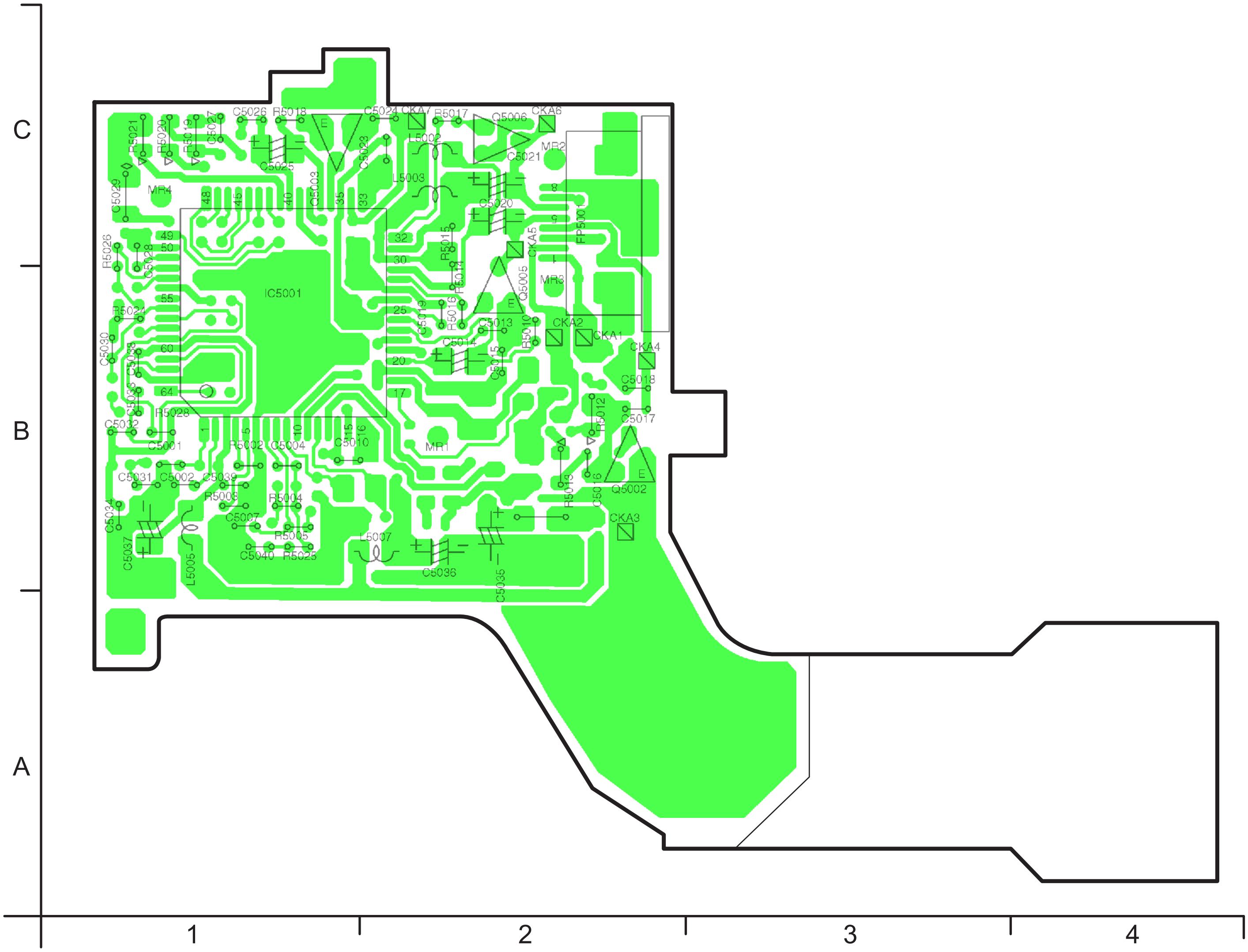
Transistor	
Q5002	B-2
Q5003	C-1
Q5005	B-2
Q5006	C-2

Connector	
FP5001	C-2

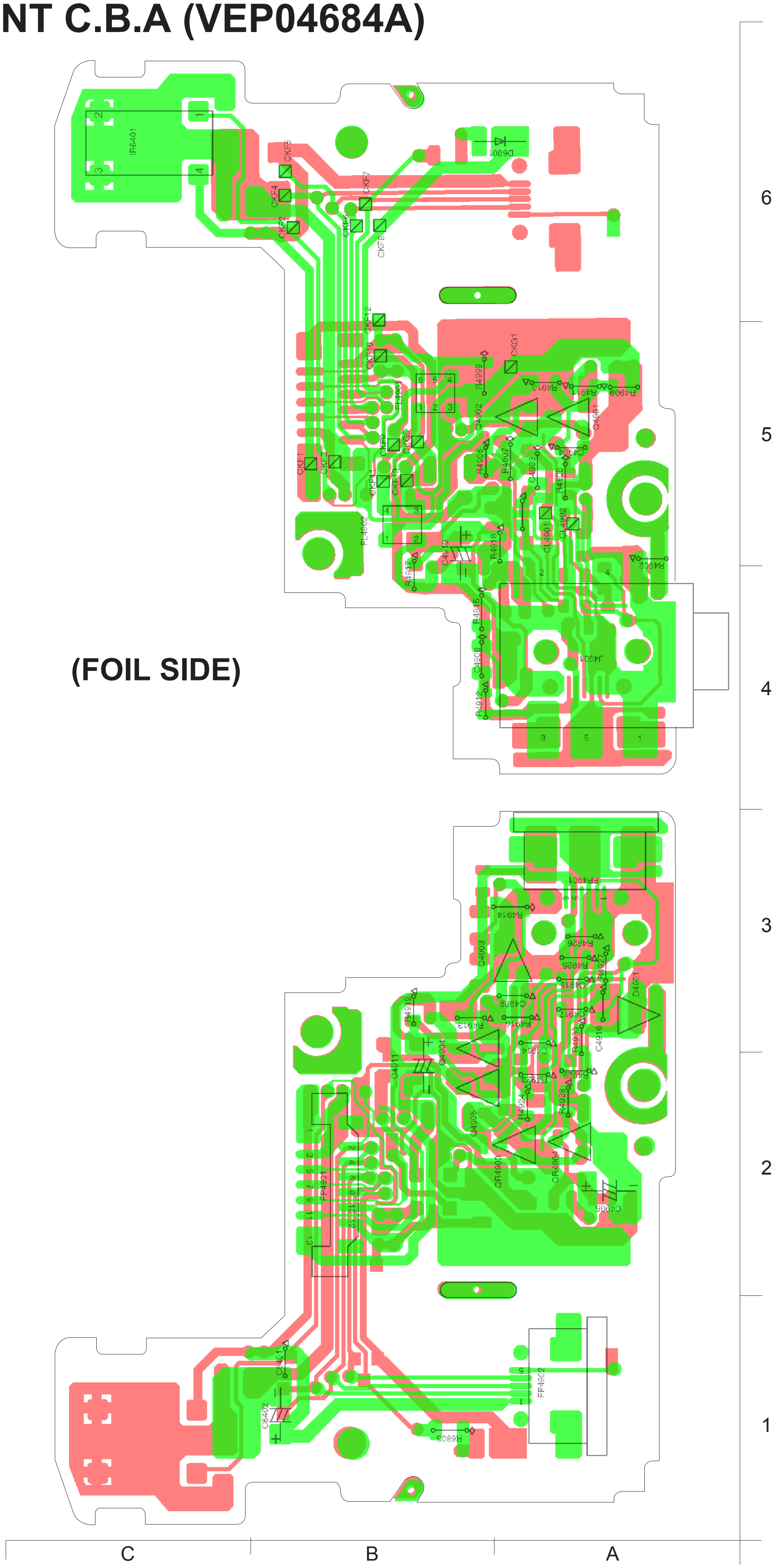
Coil	
L5002	C-2
L5003	C-2
L5005	B-1
L5007	B-2

Capacitor	
C5001	B-1
C5002	B-1
C5004	B-1
C5007	B-1
C5010	B-1
C5013	B-2
C5014	B-2
C5015	B-2
C5016	B-2
C5017	B-2
C5018	B-2
C5019	B-2
C5020	C-2
C5021	C-2
C5023	C-2
C5024	C-2
C5025	C-1
C5026	C-1
C5027	C-1
C5028	C-1
C5029	C-1
C5030	B-1
C5031	B-1
C5032	B-1
C5033	B-1
C5034	B-1
C5035	B-2
C5036	B-2
C5037	B-1
C5038	B-1
C5039	B-1
C5040	B-1

Resistor	
R5002	B-1
R5003	B-1
R5004	B-1
R5005	B-1
R5010	B-2
R5012	B-2
R5013	B-2
R5014	C-2
R5015	C-2
R5016	B-2
R5017	C-2
R5018	C-1
R5019	C-1
R5020	C-1
R5021	C-1
R5024	B-1
R5025	B-1
R5026	C-1
R5028	B-1
R5029	B-2


C
B
A
1
2
3
4
IC5001
FP5001
Q5002
Q5003
Q5005
Q5006
L5002
L5003
L5005
L5007
MR1
MR2
MR3
MR4
CKA1
CKA2
CKA3
CKA4
CKA5
CKA6
CKA7
C5001
C5002
C5004
C5007
C5010
C5013
C5014
C5015
C5016
C5017
C5018
C5020
C5021
C5023
C5024
C5025
C5026
C5027
C5028
C5029
C5030
C5031
C5032
C5033
C5034
C5035
C5036
C5037
C5038
C5039
C5040
R5002
R5003
R5004
R5005
R5010
R5012
R5013
R5014
R5015
R5016
R5017
R5018
R5019
R5020
R5021
R5024
R5025
R5026
R5028
1
5
10
15
16
17
20
25
30
32
33
35
40
45
48
49
50
55
60
64
E

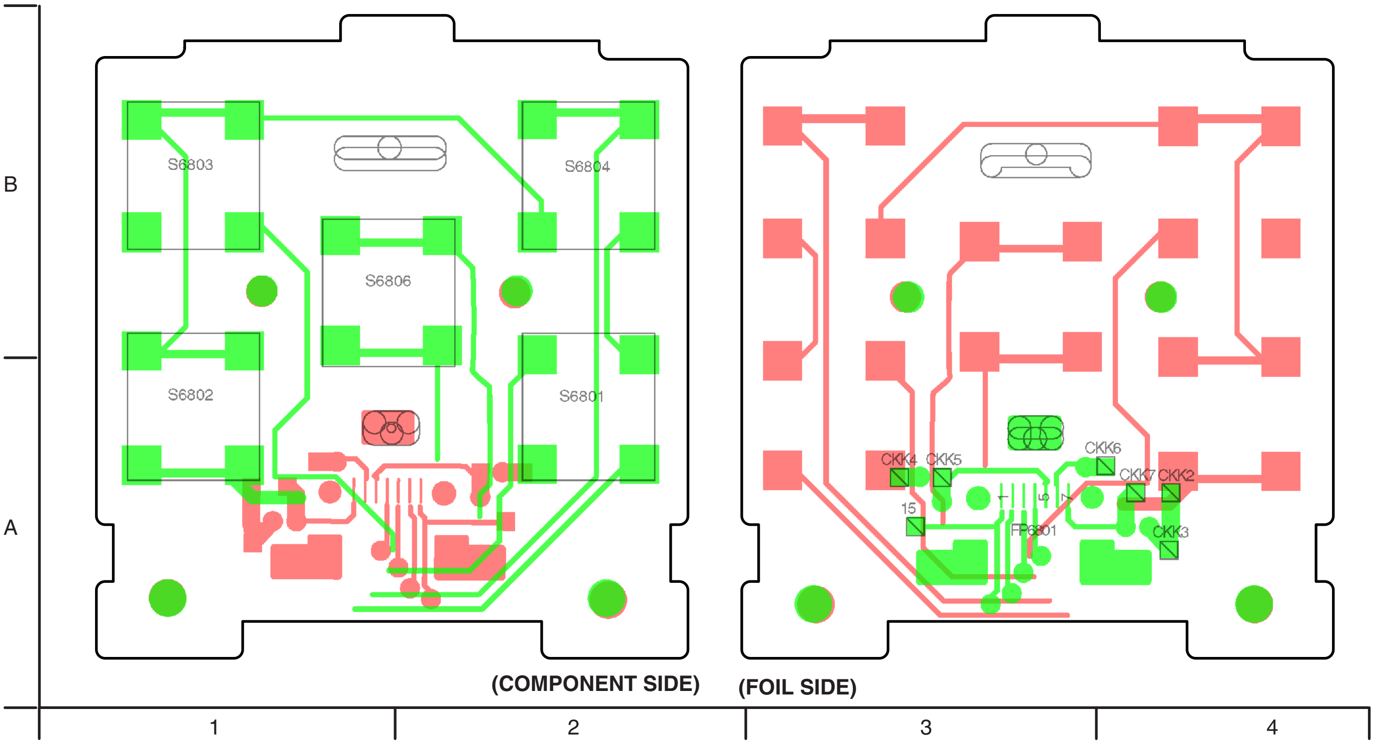
FRONT C.B.A (VEP04684A)


(FOIL SIDE)
(COMPONENT SIDE)
IR6401
D6801
CKF1
CKF2
CKF3
CKF4
CKF5
CKF6
CKF7
CKF8
CKF10
CKF11
CKF12
CKF13
CKG1
CKG2
CKG3
CL4901
CL4902
FL4901
FL4902
Q4901
Q4902
Q4903
Q4904
Q4905
QR4903
QR4904
R4907
R4908
R4909
R4910
R4911
R4912
R4913
R4914
R4915
R4916
R4917
R4918
R4919
R4925
R4926
R4999
R6808
C4903
C4905
C4908
C4909
C4910
C4911
C4916
C6401
C6402
D4901
J4901
FP4801
FP4901
FP4902
6
5
4
3
2
1
C
B
A

FRONT C.B.A.	
Transistor	
Q4901	A-5
Q4902	B-5
Q4903	B-3
Q4904	B-3
Q4905	B-2
Transistor & Resistor	
QR4903	A-2
QR4904	A-2
Connector	
FP4801	B-2
FP4901	A-3
FP4902	A-1

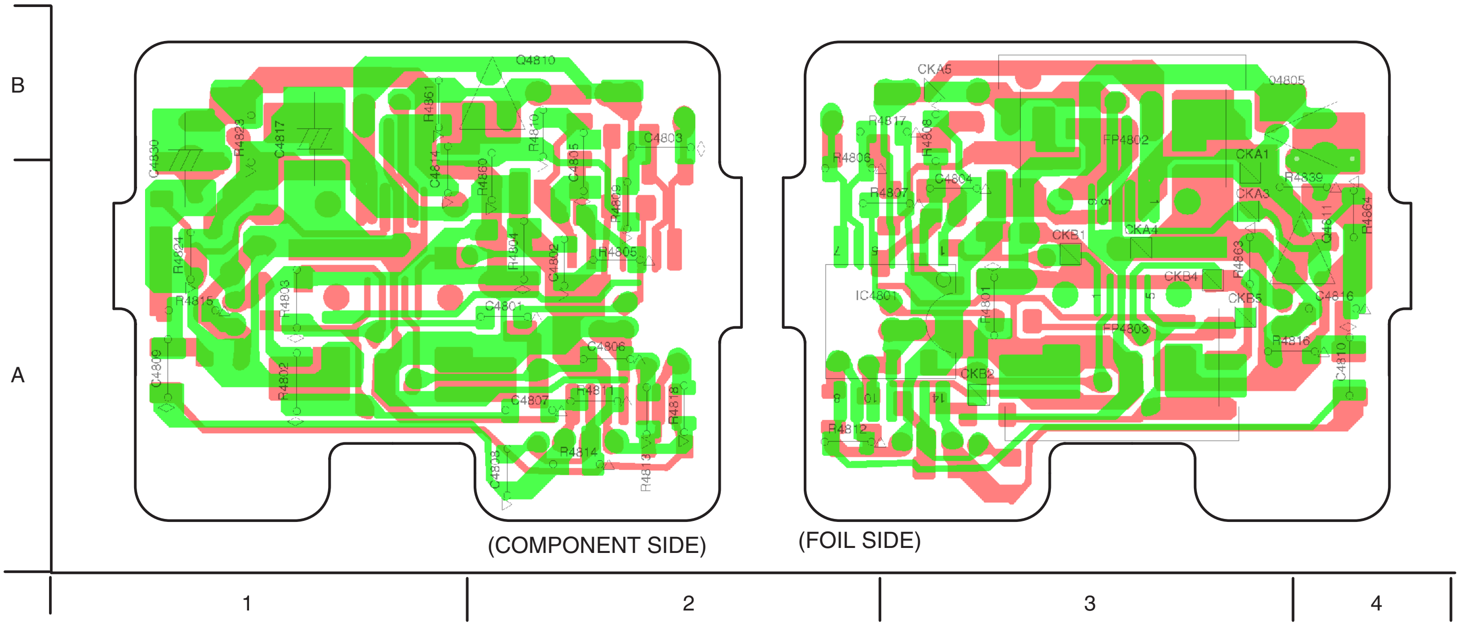
ADDRESS INFORMATION

TOP OPERATION C.B.A (VEP06C24A)



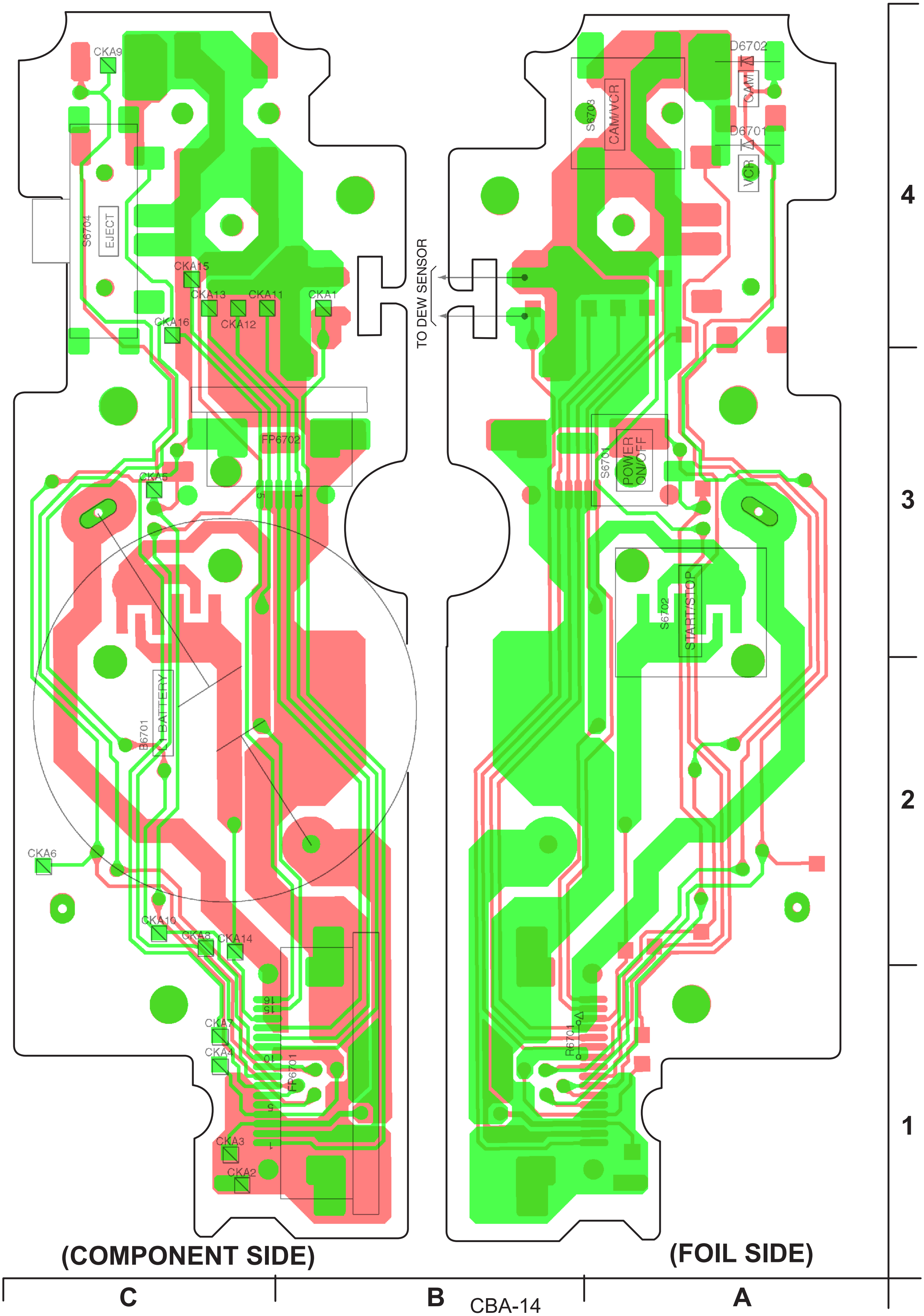
B
A
S6803
S6804
S6806
S6802
S6801
CKK4
CKK5
CKK6
CKK7
CKK2
CKK3
15
1
5
7
FP6801
(COMPONENT SIDE)
(FOIL SIDE)
1
2
3
4

MIC C.B.A (VEP04693A)

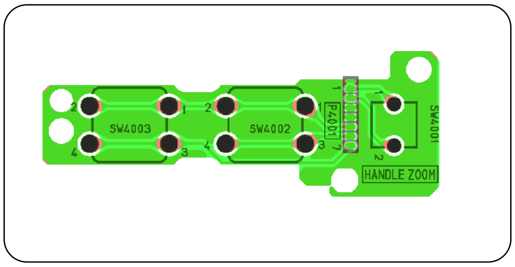


B
A
Q4810
C4830
R4823
C4817
R4861
C4814
R4860
R4819
C4805
C4803
R4809
R4804
C4802
R4805
R4821
R4815
R4803
C4801
C4809
R4802
C4806
C4807
R4811
R4818
C4808
R4814
R4813
CKA5
Q4805
R4817
R4806
R4808
FP4802
R4807
C4804
CKA1
R4839
CKA3
Q4811
R4864
CKB1
CKA4
CKB4
R4863
IC4801
CKB5
C4816
R4801
FP4803
R4816
C4810
CKB2
R4812
(COMPONENT SIDE)
(FOIL SIDE)
1
2
3
4

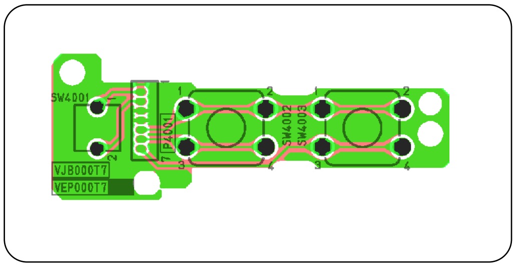
REAR OPERATION C.B.A (VEP06C37A)


CKA9
S6704
EJECT
CKA15
CKA13
CKA11
CKA1
CKA12
CKA16
FP6702
5
1
CKA5
B6701
LI BATTERY
CKA6
CKA10
CKA8
CKA14
16
15
CKA7
CKA4
10
FP6701
5
CKA3
1
CKA2
TO DEW SENSOR
D6702
S6703
CAM/VCR
CAM
D6701
VCR
S6701
POWER
ON/OFF
S6702
START/STOP
R6701
(COMPONENT SIDE)
(FOIL SIDE)
4
3
2
1
C
B
A

ZOOM C.B.A (VEP000T7A)

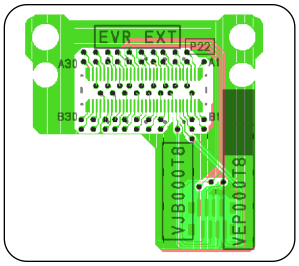

SW4003
SW4002
P4001
SW4001
HANDLE ZOOM

(FOIL SIDE)

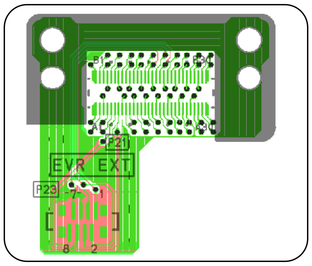

SW4001
P4001
SW4002
SW4003
VJB000T7
VEP000T7

(COMPONENT SIDE)

EVR EXT C.B.A (VEP000T8A)

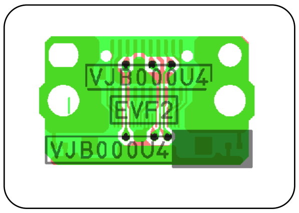

EVR EXT
P22
A30
A1
B30
B1
VJB000T8
VEP000T8

(FOIL SIDE)

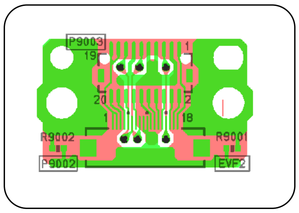

P21
EVR EXT
P23

(COMPONENT SIDE)

EVR INT C.B.A (VEP000U4A)

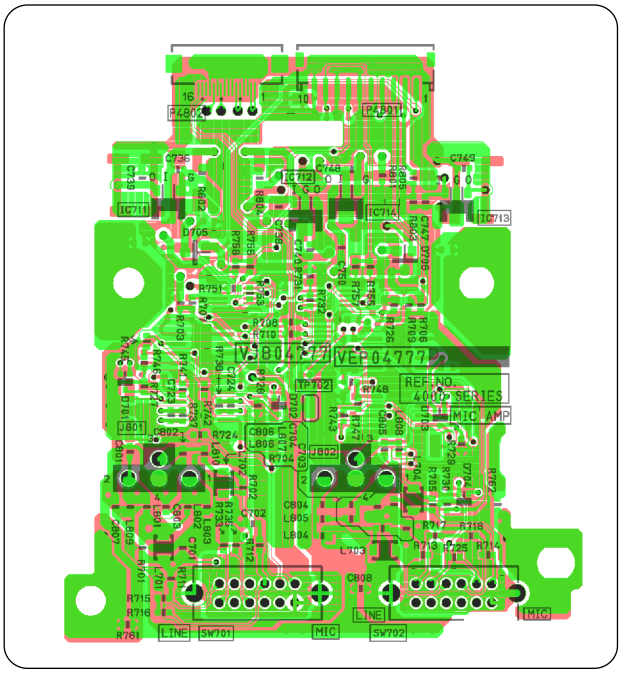

VJB000U4
EVF2
VJB000U4

(FOIL SIDE)

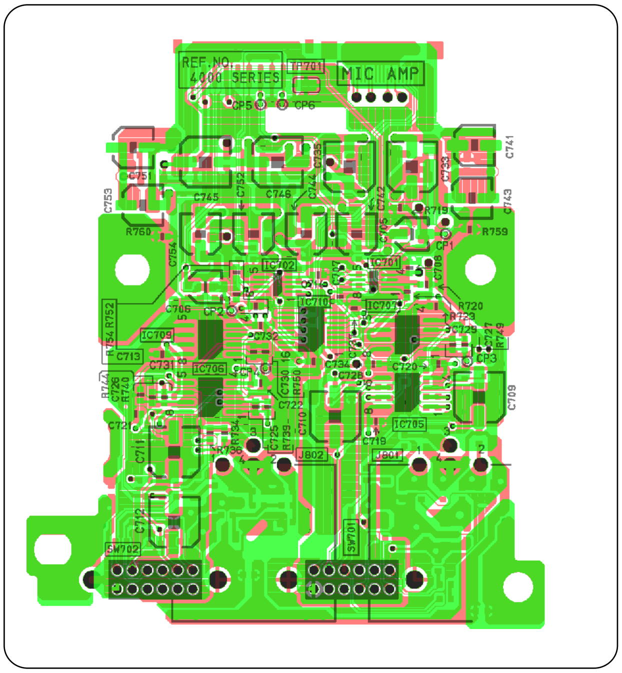

P9003
19
1
20
2
1
18
R9002
P9002
R9001
EVF2

(COMPONENT SIDE)

MIC AMP C.B.A (VEP04777A)

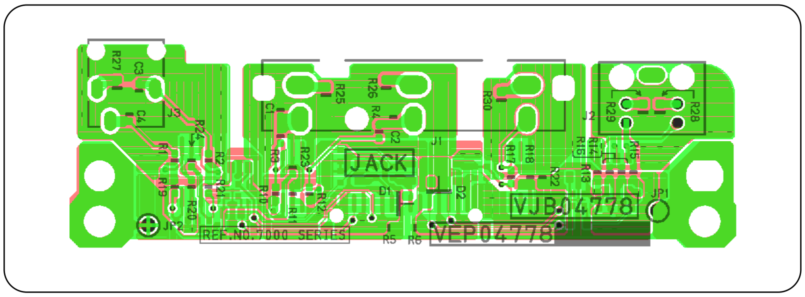


(FOIL SIDE)



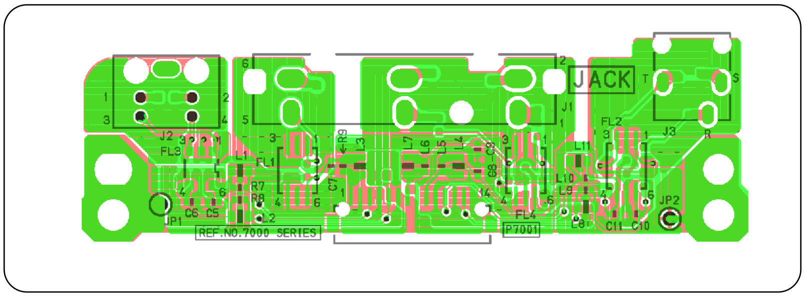
(COMPONENT SIDE)

JACK C.B.A (VEP04778A)



R27
C3
C4
J3
R24
R2
R1
R19
R21
R20
JP2
R3
R23
R10
R11
R12
R25
R26
R4
C1
C2
JACK
J1
D1
D2
R5
R6
R30
R17
R18
R22
R16
R14
R13
R15
R29
R28
J2
JP1
VJB04778
VEP04778
REF.NO.7000 SERIES

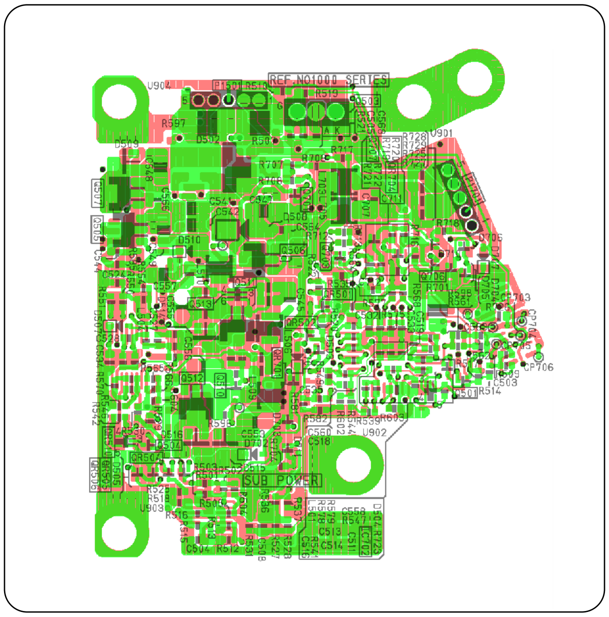
(FOIL SIDE)



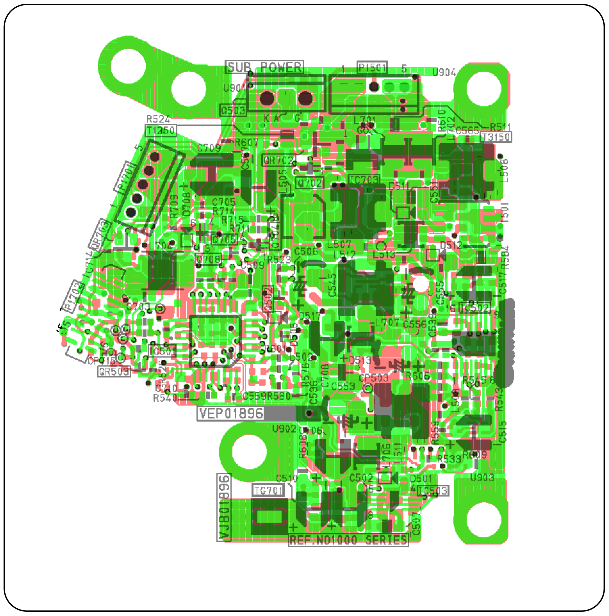
1
2
3
4
5
6
J2
FL3
JP1
C6
C5
L1
FL1
R7
R8
L2
R9
C7
L3
L7
L6
L5
L4
C9
C8
FL4
P7001
J1
JACK
FL2
L11
L10
L9
L8
C11
C10
J3
JP2
T
S
R
REF.NO.7000 SERIES

(COMPONENT SIDE)

SUB POWER C.B.A (VEP01896A)

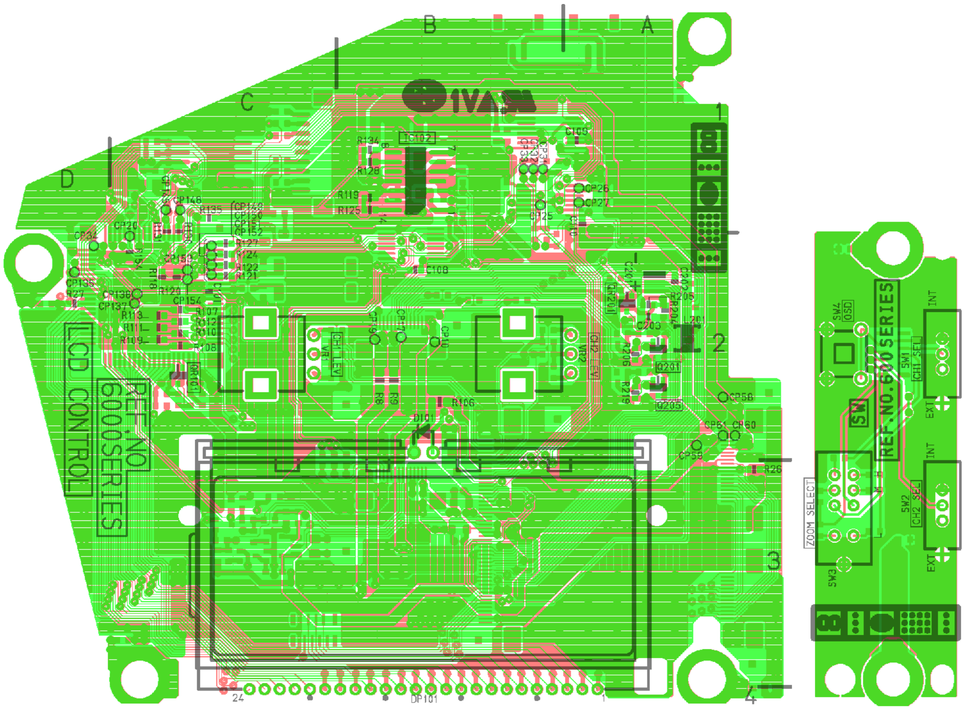


(FOIL SIDE)



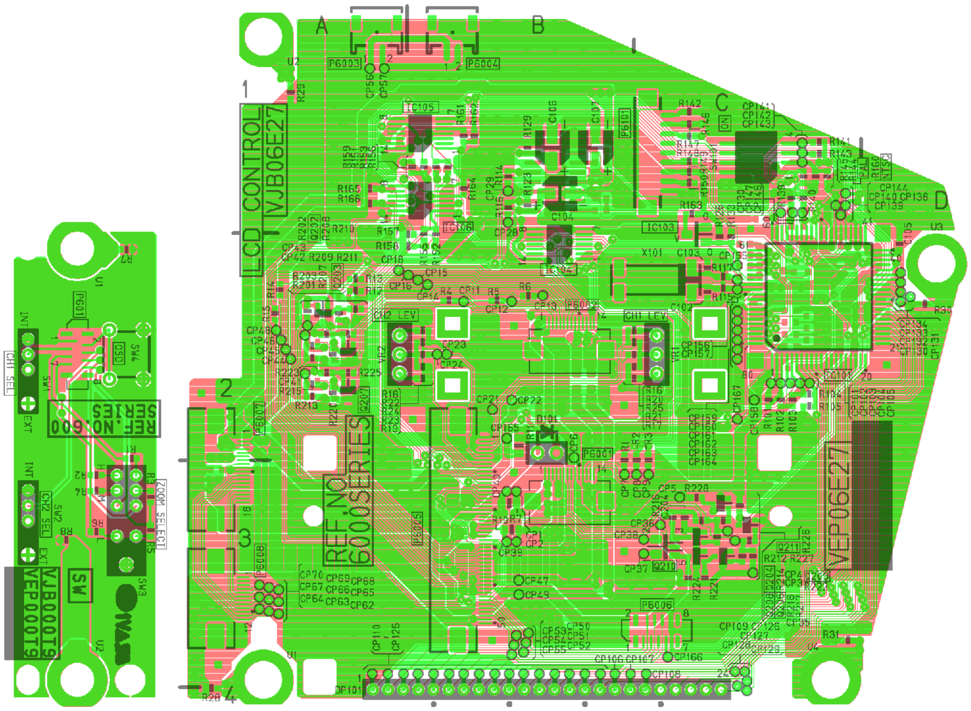
(COMPONENT SIDE)

LCD CONTROL C.B.A (VEP06E27A)
SW C.B.A (VEP000T9A)



A
B
C
D
1
2
3
4
LCD CONTROL
REF.NO.
6000SERIES
REF.NO.600SERIES
SW
ZOOM SELECT
CH1 SEL
CH2 SEL
INT
EXT
OSD
CH1 LEV
CH2 LEV
DP101

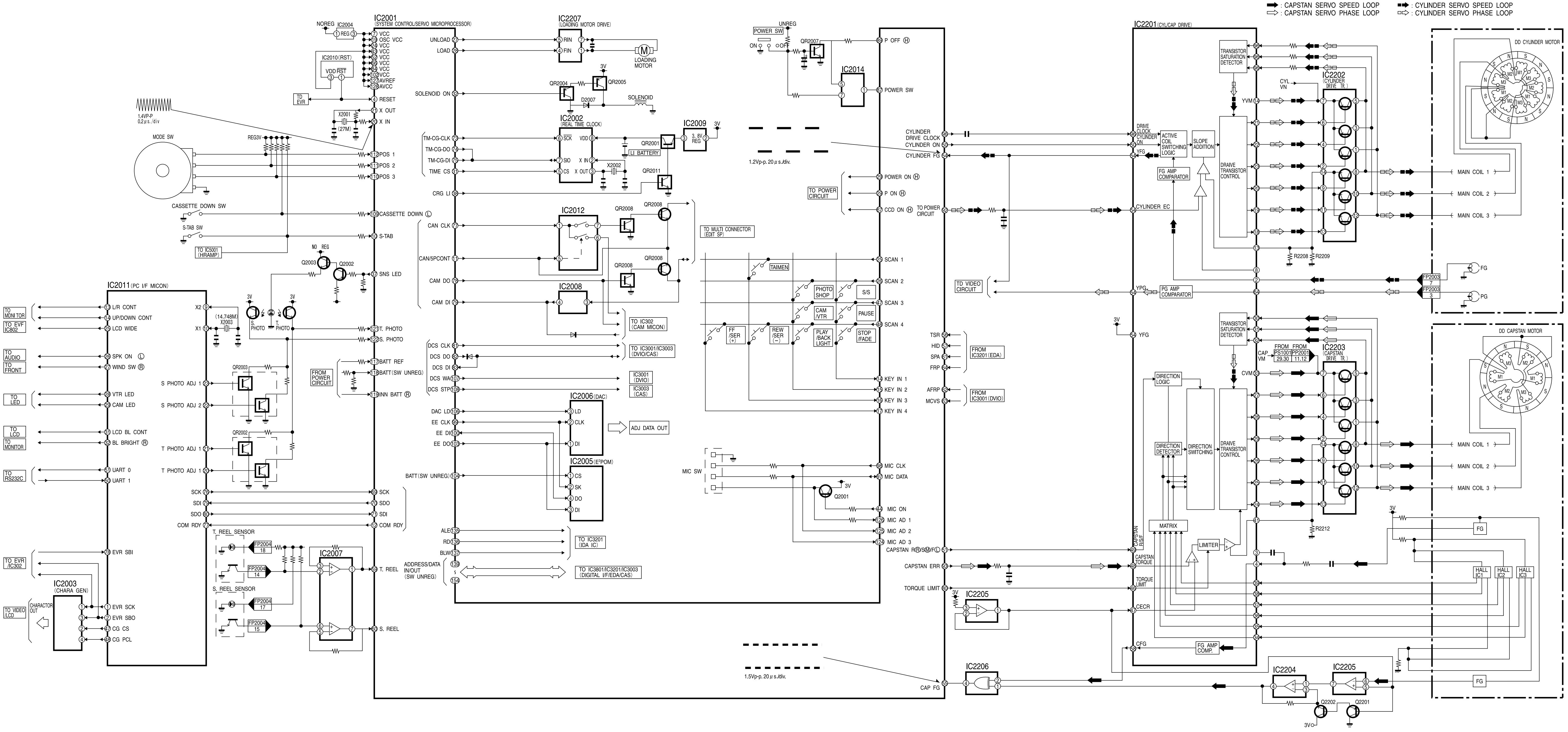
(FOIL SIDE)



A
B
C
D
1
2
3
4
LCD CONTROL
VJB06E27
REF.NO.
6000SERIES
REF.NO.600
SERIES
VEP06E27
VJB000T9
VEP000T9
SW
ZOOM SELECT
CH1 SEL
CH2 SEL
INT
EXT
OSD
CH1 LEV
CH2 LEV
P6003
P6004
P6001
P6006
P6007
P6008
IC103
IC104
IC105
X101
DP101

(COMPONENT SIDE)

SYSTEM CONTROL & SERVO BLOCK DIAGRAM



: CAPSTAN SERVO SPEED LOOP
: CAPSTAN SERVO PHASE LOOP
: CYLINDER SERVO SPEED LOOP
: CYLINDER SERVO PHASE LOOP
IC2001 (SYSTEM CONTROL/SERVO MICROPROCESSOR)
NOREG
IC2004
REG
IC2010 (RST)
VDD RST
TO EVR
VCC
OSC VCC
AVREF
AVCC
RESET
X OUT
X IN
X2001 (27M)
1.4VP-P 0.2μs./div.
MODE SW
REG3V
POS 1
POS 2
POS 3
CASSETTE DOWN SW
CASSETTE DOWN L
S-TAB SW
S-TAB
TO IC3001 (HIRAMP)
NO REG
Q2003
Q2002
SNS LED
IC2011 (PC I/F MICON)
TO MONITOR
TO EVF IC802
TO AUDIO
TO FRONT
TO LED
TO LCD
TO MONITOR
TO RS232C
TO EVR IC302
L/R CONT
UP/DOWN CONT
LCD WIDE
SPK ON L
WIND SW R
VTR LED
CAM LED
LCD BL CONT
BL BRIGHT R
UART 0
UART 1
EVR SBI
X2
X1
(14.748M) X2003
S. PHOTO
T. PHOTO
T. PHOTO
S. PHOTO
QR2003
QR2002
S PHOTO ADJ 1
S PHOTO ADJ 2
T PHOTO ADJ 1
T PHOTO ADJ 1
BATT REF
BATT (SW UNREG)
INN BATT R
FROM POWER CIRCUIT
SCK
SDI
SDO
COM RDY
SCK
SDO
SDI
COM RDY
IC2003 (CHARA GEN)
TO VIDEO LCD
CHARACTOR OUT
EVR SCK
EVR SBO
CG CS
CG PCL
T. REEL SENSOR
S. REEL SENSOR
FP2004 18
FP2004 14
FP2004 17
FP2004 15
IC2007
T. REEL
S. REEL
IC2207 (LOADING MOTOR DRIVE)
UNLOAD
LOAD
RIN
FIN
LOADING MOTOR
M
SOLENOID ON
QR2004
QR2005
D2007
SOLENOID
3V
IC2002 (REAL TIME CLOCK)
TM-CG-CLK
TM-CG-DO
TM-CG-DI
TIME CS
SCK
SIO
CS
VDD
X IN
X OUT
X2002
QR2001
LI BATTERY
QR2011
IC2009
3.8V REG
CRG LI
IC2012
QR2008
CAN CLK
CAN/SPCONT
CAM DO
CAM DI
TO MULTI CONNECTOR (EDIT SP)
IC2008
TO IC302 (CAM MICON)
DCS CLK
DCS DO
DCS DI
DCS WA
DCS STP
TO IC3001/IC3003 (DVIO/CAS)
IC3001 (DVIO)
IC3003 (CAS)
IC2006 (DAC)
DAC LD
EE CLK
EE DI
EE DO
LD
CLK
DI
ADJ DATA OUT
IC2005 (E²POM)
BATT (SW UNREG)
CS
SK
DO
DI
ALE
RD
BLW
ADDRESS/DATA IN/OUT (SW UNREG)
TO IC3201 (IDA IC)
TO IC3801/IC3201/IC3003 (DIGITAL I/F/EDA/CAS)
UNREG
POWER SW
ON
OFF
QR2007
IC2014
P OFF H
POWER SW
1.2Vp-p. 20μs./div.
CYLINDER DRIVE CLOCK
CYLINDER ON
CYLINDER FG
POWER ON H
P ON H
CCD ON H
TO POWER CIRCUIT
TO POWER CIRCUIT
TAIMEN
PHOTO SHOP
S/S
CAM /VTR
PAUSE
FF /SER (+)
REW /SER (−)
PLAY /BACK LIGHT
STOP /FADE
SCAN 1
SCAN 2
SCAN 3
SCAN 4
KEY IN 1
KEY IN 2
KEY IN 3
KEY IN 4
MIC SW
MIC CLK
MIC DATA
Q2001
MIC ON
MIC AD 1
MIC AD 2
MIC AD 3
TD VIDEO CIRCUIT
TSR
HID
SPA
FRP
FROM IC3201 (EDA)
AFRP
MCVS
FROM IC3001 (DVIO)
CAPSTAN R/S/FL
CAPSTAN ERR
TORQUE LIMIT
IC2205
1.5Vp-p. 20μs./div.
IC2206
CAP FG
IC2201 (CYL/CAP DRIVE)
DRIVE CLOCK
CYLINDER ON
YFG
ACTIVE COIL SWITCHING LOGIC
SLOPE ADDITION
FG AMP COMPARATOR
CYLINDER EC
TRANSISTOR SATURATION DETECTOR
DRAIVE TRANSISTOR CONTROL
YVM
CYL VN
IC2202 (CYLINDER DRIVE TR.)
R2208
R2209
YPG
FG AMP COMPARATOR
DD CYLINDER MOTOR
MAIN COIL 1
MAIN COIL 2
MAIN COIL 3
FP2003 7
FP2003 3
FG
PG
YFG
CAP VM
FROM PS1001 29.30
FROM PP2001 11.12
IC2203 (CAPSTAN DRIVE TR.)
CVM
DIRECTION LOGIC
DIRECTION DETECTOR
DIRECTION SWITCHING
DRAIVE TRANSISTOR CONTROL
MATRIX
LIMITER
CAPSTAN R/S/F
CAPSTAN TORQUE
TORQUE LIMIT
CECR
CFG
FG AMP COMP.
R2212
DD CAPSTAN MOTOR
HALL IC1
HALL IC2
HALL IC3
IC2204
IC2205
Q2202
Q2201
3V